PB84-103787

Draft Environmental Impact Statement
Wastewater Treatment Facilities
Jefferson Parish (West Bank) Louisiana
(Supplemental)

(U.S.) Environmental Protection Agency
Dallas, TX

Aug 83

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16. ABSTRACT

Jefferson Parish has developed a new alternative for making improvements to its wastewater treatment facilities on the West Bank. Their preferred alternative consists of renovating and expanding the three largest treatment plants--Bridge City, Harvey, and Marrero-- with Parish generated funds. This Supplement provides an environmental evaluation of the Parish's preferred alternative.

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United States
Environmental Protection
Agency

Region 6
1201 Elm Street
Dallas, TX 75270

EPA 906/9-83-010
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Water

PB84-103787

EPA

Environmental Impact Statement

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Wastewater Treatment Facilities

Jefferson Parish (West Bank) Louisiana

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Environmental Impact Statement

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Wastewater Treatment Facilities

Jefferson Parish (West Bank) Louisiana

i.a

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
INTERFIRST TWO BUILDING. 1201 ELM STREET
DALLAS. TEXAS 75270

August 16, 1983

TO ALL INTERESTED AGENCIES, OFFICIALS, PUBLIC GROUPS AND INDIVIDUALS:

This is a copy of the Supplemental Draft Environmental Impact Statement (EIS) on the awarding of a construction grant under Section 201 of the Clean Water Act for construction of wastewater treatment facilities for Jefferson Parish, West Bank, Louisiana. This document has been prepared in compliance with the National Environmental Policy Act of 1969 and implementing regulations.

EPA will hold a public hearing on the Supplemental Draft EIS at 7:30 p.m., Thursday, October 20, 1983, in the New Gretna Courthouse, Council Chamber - Second Floor, Derbigny and Second Street, Gretna, Louisiana. I request that individuals and representatives of groups wishing to make a statement at the hearing submit a written copy of their proposed statement at the time of the hearing, if possible.

If changes required in the Supplemental Draft EIS are minor, the Final EIS will incorporate the Supplemental Draft EIS by reference and include only: (1) a revised summary, (2) revisions necessary to the Supplemental Draft EIS as a result of public comment, and (3) EPA's response to comments made on the Supplemental Draft EIS. Therefore, the Supplemental Draft EIS should be retained for possible use in conjunction with the Final EIS. The Final EIS will be sent only to those who request a copy of or who make substantive comments on the Supplemental Draft EIS.

Copies of the Supplemental Draft EIS are available for review at the following locations:

Marrero Branch Public Library
626 Avenue A
Marrero, Louisiana

Terrytown Branch Public Library
630 Heritage Avenue
Gretna, Louisiana

Lafitte Branch Public Library
Lafitte Volunteer Building
Main Road
Lafitte, Louisiana

Westwego Branch Public Library
222 Fourth Street
Westwego, Louisiana

A draft wastewater treatment facilities plan for the West Bank of Jefferson Parish is currently under preparation and should be available for public review in October 1983. Jefferson Parish officials will hold a public hearing on the facilities plan thirty (30) days after its release.

Written comments of inquiries regarding this Supplemental Draft EIS should be addressed to Mr. Clinton B. Spotts, Regional EIS Coordinator, at the above address by the date stamped on the cover sheet following this letter.

Sincerely yours,

Frances C. Phillips

Dick Whittington, P.E.
Regional Administrator

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT
WASTEWATER TREATMENT FACILITIES
JEFFERSON PARISH (WEST BANK), LOUISIANA

Responsible Agency: U.S. Environmental Protection Agency, Region VI

Action Being Considered: Possible awarding of a construction grant for wastewater treatment facilities for Jefferson Parish (West Bank), Louisiana.

Contact for further Information: Clinton B. Spotts, Regional EIS Coordinator, U.S. Environmental Protection Agency, Region VI, InterFirst Two Building, 1201 Elm Street Dallas, Texas 75270

Telephone: (214) 767-2716
FTS 729-2716

Abstract: Jefferson Parish has developed a new alternative for making improvements to its wastewater treatment facilities on the West Bank. Their preferred alternative consists of renovating and expanding the three largest treatment plants -- Bridge City, Harvey, and Marrero -- with Parish generated funds. This supplemental provides an environmental evaluation of the Parish's preferred alternative.

Date Comments Due: 24 OCT 1983

Responsible Official: Dick Whittington, P.E.
Regional Administrator

1.0 SUMMARY

1.1 BACKGROUND

The National Environmental Policy Act (NEPA) of 1969 requires that Federal agencies prepare an Environmental Impact Statement (EIS) for all Federal actions which significantly affect the quality of the human environment. Due to the potentially significant environmental impacts associated with construction of wastewater treatment facilities for the West Bank of Jefferson Parish, the Environmental Protection Agency (EPA) determined that the preparation of an EIS was necessary. EPA and Jefferson Parish entered into an agreement to prepare an EIS by the "piggy-back" method and, subsequently, issued a Notice of Intent to prepare an EIS on February 25, 1980. The Draft EIS for the Wastewater Treatment Facilities of Jefferson Parish (West Bank) Louisiana, was prepared and circulated for comment in February, 1982. The Draft EIS addressed the environmental consequences of 12 alternatives. Various sites, combinations of sites, methods of treatment and the No Action alternative were evaluated in the Draft EIS. Table 1-1 summarizes these alternatives. Table 1-2 summarizes the environmental consequences of the final 12 alternatives.

Due to the poor prospects of receiving Federal funds under Title II of the Clean Water Act and because Jefferson Parish's wastewater treatment facilities must be in compliance with Section 301 of the Clean Water Act requiring publicly owned treatment works to attain standards of the Act by July 1, 1988, Jefferson Parish has prepared an alternate program not addressed in the Draft EIS. Jefferson Parish is currently spending $15-$18 million to renovate three of the largest existing facilities on the West Bank and since this option now appears to be the cost-effective alternative, Jefferson Parish has elected to further expand those facilities to meet the Parish's needs through 2005. In order to continue to remain in line for Federal funding, should such funding become available, and because the alternative of expanding the three largest plants was not evaluated in the Draft EIS issued in February, 1982, this Supplemental Draft EIS addressing the option of expanding the facilities at Bridge City, Harvey and Marrero, Louisiana, has been prepared. Based on analyses conducted by the Parish, this option is considerably less expensive than the alternatives addressed in the original Draft EIS. It is also an option

Table 1-1

FINAL ALTERNATIVES FOR JEFFERSON PARISH WEST BANK

ALTERNATIVE	DESCRIPTION
A	Regional Secondary Treatment at Cousins North (1 plant)
B	Regional Secondary or Advanced Treatment at Hero Cut-off (1 plant)
C	Regional Secondary Treatment at Timberlane (1 plant)
D	Zone I Aquatic Treatment at Churchill Farms Zones II and III Secondary Treatment at Cousins North (1 aquatic site, 1 plant)
E	Zone I Secondary Treatment at U.S. 90 Zones II and III Secondary or Advanced Treatment at Hero Cut-off (2 plants)
F	Zone I Secondary Treatment at U.S. 90 Zones II and III Secondary Treatment at Cousins North (2 plants)
G	Zone I Secondary Treatment at U.S. 90 Zones II and III Secondary Treatment at Timberlane (2 plants)
H	Regional Secondary Treatment at U.S. 90 (1 plant)
I	Zones I and II Secondary Treatment at U.S. 90 Zone III Secondary Treatment at Timberlane (2 plants)
J	Zone I Secondary Treatment at Kelvin Tract and Secondary Treatment at U.S. 90 Zones II and III Secondary Treatment at Cousins North (3 plants)
K	Zone I Secondary Treatment at U.S. 90 Zone II Secondary Treatment at Cousins North Zone III Secondary Treatment at Timberlane (3 plants)
L	No Action

which the Parish would be able to implement in phases, as funding becomes available.

1.2 DESCRIPTION OF THE PARISH'S PREFERRED ALTERNATIVE

Jefferson Parish's wastewater treatment needs are currently served by a system of 14 sewage treatment plants located throughout the West Bank area. Jefferson Parish proposes that three of these existing plants be upgraded to treat project year 2005 sewage flow to secondary standards. All other existing treatment plants on the West Bank are to be eventually abandonded. Effluents will be discharged to the Mississippi River from all three facilities. Discharge of effluent from the Harvey plant to the Harvey Canal is an option also under consideration.

The proposed facilities for expansion are located at Bridge City in the western portion of the West Bank, Marrero in the central area, and Harvey on the eastern side (Figure 1-1). The incorporated cities of Westwego and Gretna are excluded from the Jefferson Parish West Bank treatment system.

Construction is currently in progress at the Bridge City facility to upgrade the plant to treat 1.96 million gallons per day (MGD). The proposed alternative would upgrade this facility to treat 7.27 MGD. A trickling filter biological treatment with anaerobic sludge digestion would be utilized to treat sewage flows. The expansion would increase the area for the treatment plant from the existing three acres to a total of seven acres.

Construction is currently in progress at the Marrero plant to increase capacity to 9.60 MGD. The proposed construction would upgrade the capacity of this facility to 12.51 MGD. A trickling filter biological treatment with an aerobic sludge digestion with a belt press sludge de-watering system would be utilized at the site. The expansion would increase the area of the facility from the existing 11 acres to a total of 18 acres.

Construction is currently in progress at the Harvey facility to upgrade this plant to 3.3 MGD capacity. The proposed construction would increase the capacity of the Harvey treatment plant to 10.8 MGD. A trickling filter biological

treatment with anaerobic sludge digestion would be utilized at this site. The expansion would require an additional 7.5 acres resulting in a total land area of 12.5 acres. An alternative method of disposal is being considered for the Harvey facility. Under this option, sewage would be discharged to the nearby Harvey Canal. The question of discharge will be resolved by the State contingent upon reevaluation of their 208 Plan.

Sludge from the three expanded facilities would be disposed in a Parish-owned landfill(s) permitted by the Louisiana Department of Natural Resources.

The selection of the method of treatment is based upon current information and reflects the level of analysis necessary to complete this stage of the Facilities Plan. Each site will undergo further predesign analysis at the time of design of the facilities, which might modify or alter the above treatment modes.

The total capital cost to upgrade the facilities and the conveyance system would be approximately $66.2 million with an annual operations and maintenance cost of $4.0 million, resulting in an equivalent uniform annual cost of $9.9 million. If discharge to the Harvey Canal is utilized, the total capital cost for the facilities would be approximately $64.7 million; annual operations and maintenance cost, $4.0 million; and equivalent uniform annual cost of $9.8 million.

1.3 ENVIRONMENTAL CONSEQUENCES OF THE PARISH'S PREFERRED ALTERNATIVE

The preferred alternative, which involves secondary treatment and discharge of effluent to the Mississippi River, would not have adverse impacts on water quality or drinking water supplies. Additionally, if secondarily treated effluent is discharged to the Harvey Canal, there would be no adverse effect on the water quality in the area.

No adverse impacts on geology, ground water and cultural resources are expected from implementation of this alternative. Air and sound quality impacts are expected to be relatively minor and short-term during construction of facilities.

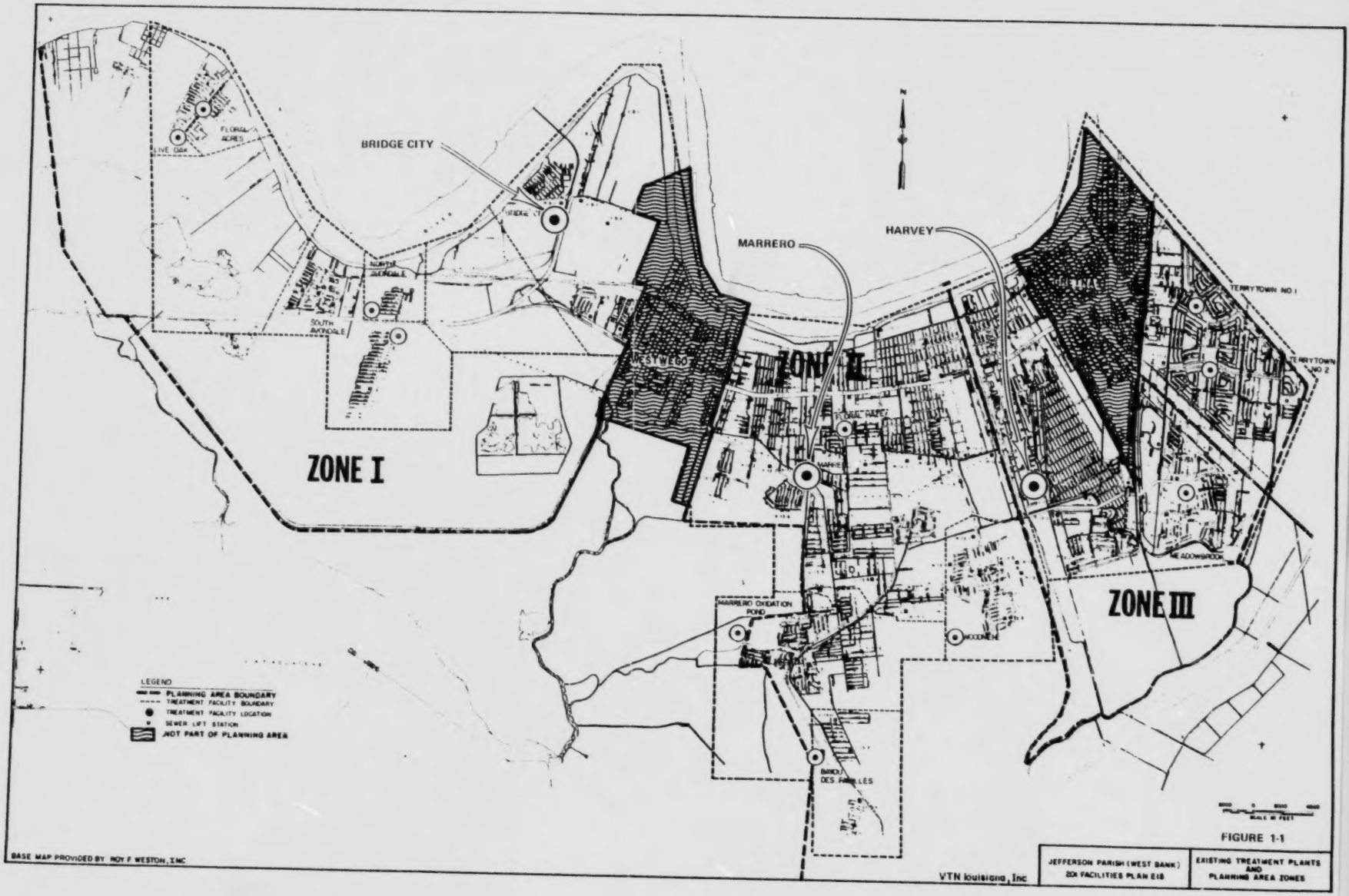

FIGURE 1-1

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Land use, especially nearby residential areas, are a major concern for the proposed alternative. One of the Bridge City sites is currently vacant, the other is occupied by the Louisiana Department of Transportation and Development facilities. The existing Marrero facility is currently located adjacent to a residential area. The proposed expansion site is vacant. The expansion site for the Harvey facility is an area currently occupied by industrial use. Overall, potential adverse impacts can be expected to adjacent residential areas.

Implementation of the Parish's preferred alternative (also referred to as Alternative N) would have beneficial impacts to areas on the West Bank. The eventual abandonment of the existing facilities would be beneficial to residents near these facilities. In addition, discharge of effluent to the Mississippi River would eliminate current flow of effluent into the Barataria Basin. This should have an overall beneficial effect on the water quality and the biological resources in the Barataria Basin.

Table 1-3 gives a comparison of Alternative N and other alternatives.

1.4 ALTERNATIVES AVAILABLE TO EPA

Three options are available to EPA in executing its Construction Grants Program under Section 201 of the Clean Water Act. These options are: to award grant funds for the construction of the grantee's preferred alternative; to award grant funds for a modified or alternative project; or to deny all grant funds for the project.

1.4.1 Award Grants for the Grantee's Preferred Alternative

EPA may award grant funds for the construction of the Parish's preferred alternative. Under Public Law No. 97-117 ("Municipal Wastewater Treatment Construction Grant Amendments of 1981"), passed December 29, 1981, grants can be awarded for 75% of the eligible project costs until October 1, 1984. Thereafter, the Federal level of participation will drop to 55% of eligible project costs. Eligible categories of projects include wastewater treatment plants, interceptor sewers, and collection systems. Effective October 1, 1984,

however, collector sewers will no longer be eligible except as part of the governor's discretionary fund, which will be between zero and 20% of the state's total allotment. For projects utilizing innovative or alternative technology, grants for 85% of the eligible project costs can be made until October 1, 1984. After that time, funds will be available for only 75% of eligible project costs.

It should be noted that EPA's awarding of grant funds is dependent upon the amount of Federal money designated for Louisiana and the ranking of the project on the State's priority list. Also, should the preferred alternative be substantially changed from what is currently proposed, another environmental review may be necessary.

1.4.2 Award Grants for an Alternate Project

EPA may award grant funds for the construction of an alternative or modified project, if it is more cost-effective and has less adverse environmental impacts.

1.4.3 Deny Grant Funds

EPA can deny awarding funds for the construction of any wastewater treatment alternative if it is determined to be ineligible for funding under EPA criteria or if environmental impacts of the project are considered significantly adverse.

1.5 COORDINATION

Since the public hearing on the Draft EIS, additional public participation and coordination on the proposed wastewater treatment facilities has occurred. Meetings were held with the Citizens Advisory Committee and with the public to delineate the Parish's preferred alternative. The Citizens Advisory Committee gave unanimous support to the Parish's preferred alternative. Further discussion of this coordination is set forth in Section 6.3.

TABLE 13

ENVIRONMENTAL COMPARISON OF
FINAL AND SUPPLEMENTAL ALTERNATIVES

Alternatives and Related Sites	Environmental Factors															
	Aquatic	Terrestrial	Social	Surface Water	Public Water Supply	Flora, Fauna and Area	Groundwater	Air Quality	Noise Quality	Geological Resources	Wetlands	Cultural Resources	Socioeconomic Factors	Impacts and Mitigation	Land Use
A Existing North	No impacts anticipated	No impacts anticipated	Construction problems anticipated for collection system, regional plant site has poor soil conditions.	General improvement in area water quality due to bypassing of ex-isting treatment plants	No adverse impacts anticipated due to spatial separation of surface and water intakes. Degree of treatment provided, and river flow	Cousins North site is in 100 year floodplain and has a flood elevation of 3.5 feet (12/26/74).	No impacts anticipated. Groundwater is not used for potable water supply	Fugitive dust and equip-ment exhaust emissions anticipated. Impacts will be minor and mitigation measures available	Construction activities will produce noise impacts of short term duration. Mitigating measures available	Adverse impact due to other disruption of terrestrial habitat	Cousins North site is not a wetland area	No impacts anticipated	The final alternatives were evaluated with respect to a number of environmental factors. The impacts of the final alternatives are described in more detail below.	Annual electricity requirement to 19 x 10^6 KWH/yr Polymer 43.8 lb/yr Chlorine 0 Tons/yr	In order to compare the site specific effects from each alternative, a set of evaluation criteria was developed and is listed below: 1 Quantity of land needed at each site 2 Total amount of land for each alternative 3 Compatibility with existing uses 4 Compatibility with planned uses 5 Community attitudes 6 Aesthetic considerations This analysis allowed the alternatives to be grouped according to level of adverse impacts. Specific impacts: Least Adverse - A, H, D, J Some Adverse - B, G, K Most Adverse - C, E, I, F
B Near Cut Off	No impacts anticipated	No impacts anticipated	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	More cut off site is in 10% year floodplain and has a flood elevation of 5 feet (/76/76)	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	More cut off site is a wetland area	No impacts anticipated	**Population** Growth will be due to economic and social urbanization patterns and planning efforts, not a direct result of project alternatives. **Recreation** Alternatives could have indirect impact on parks & recreation facilities possible adverse impact on Jean Lafitte Park from alternatives B and E **Environmental and Income Characteristics** Possible adverse impacts to area's fishing industry from alternatives B and E, generally beneficial impacts due to other alternatives **Cultural** No direct effect due to any of the alternatives, possible indirect effect due to population growth **Energy Demand and Utilities** No adverse direct or indirect effects due to project alternatives **Public Health and Safety** Alternatives will improve existing conditions and be beneficial for public health. Sewage back-ups in homes should be eliminated **Transportation** Temporary traffic disruption during construction for all alternatives, possible conflict at U.S. 90 site with proposed new Mississippi River Bridge crossing	Annual electricity requirement to 22.5 x 10^6 KWH/yr Polymer 43.8 lb/yr Chlorine 1,024 Tons/yr	1 Quantity of land needed at each site 2 Total amount of land for each alternative 3 Compatibility with existing uses 4 Compatibility with planned uses 5 Community attitudes 6 Aesthetic considerations This analysis allowed the alternatives to be grouped according to level of adverse impacts. Specific impacts: Least Adverse - A, H, D, J Some Adverse - B, G, K Most Adverse - C, E, I, F
C Timberlane	No impacts anticipated	No impacts anticipated	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Timberlane site is in 10% year floodplain and has a flood elevation level of 1.5 feet (10/31/75).	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Timberlane site is not a wetland area	No impacts anticipated		Annual electricity requirement to 21.1 x 10^6 KWH/yr Polymer 41 lbs/yr Chlorine 0 Tons/yr	
D Churchill Farms and Cousins North	No impacts anticipated	No impacts anticipated	Same as Alternative A above	Same as Alternative A above	Same as Alternative A for Cousins North only. Churchill Farms would discharge to Bacteria Basin	Cousins North site is in 100 year floodplain and has a flood elevation level of 3.5 feet(12/26/75). Churchill Farms site is in 100 year floodplain and has a flood elevation level of 4.0 feet (10/31/75). Possibility of water impacts on adjacent areas	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Cousins North site is not a wetland area. Churchill Farms site has both wetland and non wetland areas	No impacts anticipated		Annual electricity requirement to 22.5 x 10^6 KWH/yr Polymer 41 lbs/yr Chlorine 901 Tons/yr	
E U.S. 90 and Near Cut Off	No impacts anticipated	No impacts anticipated	Same as A other except soil conditions at U.S. 90 site are somewhat better	Same as A above	Same as Alternative A above	U.S. 90 site not in 100 year floodplain. Near Cut off site is in 100 year floodplain and has a flood elevation level of 3.5 feet (7/8/76).	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 site is not a wetland area. Near Cut off site is a wetland area.	No impacts anticipated		Annual electricity requirement to 22.6 x 10^6 KWH/yr Polymer 41 lbs/yr Chlorine 901 Tons/yr	
F U.S. 90 and Cousins North	No impacts anticipated	No impacts anticipated	Same as Alternative E above	Same as Alternative A above	Same as Alternative A above	Cousins North site is in 100 year floodplain and has a flood elevation of 3.5 feet (12/26/75). U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 and Cousins North sites are both non-wetland areas	No impacts anticipated		Annual electricity requirement to 20.7 x 10^6 KWH/yr Polymer 43 lbs/yr Chlorine 0 Tons/yr	
G U.S. 90 and Timberlane	No impacts anticipated	No impacts anticipated	Same as Alternative E above	Same as Alternative A above	Same as Alternative A above	Timberlane site is in 10% year floodplain and has a flood elevation of 1.5 feet (10/31/75). U.S. 90 site is not in 100-year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 and Timberlane sites are both non-wetland areas	No impacts anticipated		Annual electricity requirement to 19.8 x 10^6 KWH/yr Polymer 43 lbs/yr Chlorine 0 Tons/yr	
H U.S. 90	No impacts anticipated	No impacts anticipated	Construction problems anticipated for collection system, regional plant site at U.S. 90 has better soil conditions	Same as Alternative A above	Same as Alternative A above	U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 site is not a wetland area	No impacts anticipated		Annual electricity requirement to 23.2 x 10^6 KWH/yr Polymer 43 lbs/yr Chlorine 0 Tons/yr	
I U.S. 90 and Timberlane	No impacts anticipated	No impacts anticipated	Same as A above, except soil conditions for Zone 3/31 plant at U.S. 90 is somewhat better than other sites.	Same as Alternative A above	Same as Alternative A above	Same as Alternative C above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 and Timberlane sites are non-wetland areas	No impacts anticipated		Annual electricity requirement to 21.2 x 10^6 KWH/yr Polymer 43 lbs/yr Chlorine 0 Tons/yr	
J Belvin Tract U.S. 90 and Cousins North	No impacts anticipated	No impacts anticipated	Same as Alternative E above	Same as Alternative A above	Same as Alternative A above	Belvin Tract is in 100 year floodplain and has a flood elevation of 4.0 feet (10/31/75). Cousins North site is in 100 year floodplain and has a flood elevation of 3.5 feet (12/26/75). U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Belvin Tract is wetland, except for southeastern corner. Cousins North and U.S. 90 are both non-wetland	No impacts anticipated		Annual electricity requirement to 20.2 x 10^6 KWH/yr Polymer 43 lbs/yr Chlorine 0 Tons/yr	
K U.S. 90 Cousins North and Timberlane	No impacts anticipated	No impacts anticipated	Same as Alternative E above	Same as Alternative A above	Same as Alternative A above	Timberlane is in 100 year floodplain and has a flood elevation of 1.5 feet (10/31/75). Cousins North is in 100 year floodplain and has a flood elevation of 3.5 feet (12/26/75). U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90, Cousins North and Timberlane sites are non-wetland area.	No impacts anticipated		Annual electricity requirement to 19.8 x 10^6 KWH/yr Polymer 43 lbs/yr Chlorine 0 Tons/yr	
L No Action	No impacts anticipated	No impacts anticipated	No impacts anticipated	Surface water quality will decrease	No impacts anticipated (no discharge to the Mississippi River)	No increased impacts anticipated beyond flooding now experienced at existing plants	No significant impact anticipated	No significant impacts if SIP recommendations are followed	Increased noise levels expected in areas adjacent to existing treatment facilities due to necessary expansion of existing plants for future flows.	Continued degradation of Bacteria Basin.	No impacts anticipated	No impacts anticipated.	Potential slowing of growth due to need to provide adequate sewer facilities as development occurs. The socio-economic impacts of this alternative described in Ch. 4		No impacts anticipated.
M Metairie	No impacts anticipated.	No impacts anticipated.	Construction problems anticipated for collection system, regional plant site has better soil conditions.	Same as Alternative A above.	Same as Alternative A above.	Switchboard site is not in 10-year floodplain	Same as Alternative A above.	Same as Alternative A above.	Same as Alternative A above.	Same as Alternative A above.	Switchboard site is a transitional site, non-wetland area	No impacts anticipated	Same as Alternatives A-E above.	Annual electricity requirement to 3.7 x 10^6 KWH/yr Polymer 2,000 lb/yr Chlorine 734 Tons/yr	
N Bridge City Sarpy and Harvey	No impacts anticipated.	No impacts anticipated.	Construction problems anticipated for collection system, poor soil conditions at expansion sites generally; some soil loss during construction.	Same as Alternative A above.	Same as Alternative A above.	Bridge City expansion site is outside 500-year flood zone. Harvey expansion site is in 100-year floodplain and has a base flood elevation of 9.3 ft (7/8/76). Harvey expansion site in area of 100-year shallow flooding (1-3 ft.)	Same as Alternative A above.	Same as Alternative A above.	Same as Alternative A above.	Same as Alternative A above.	Bridge City, Harvey, and Harvey expansion sites are not wetland areas.	No impacts anticipated.	Same as Alternatives A-E	Same as Alternatives A-M above.	Least adverse-same as A, B, F, J

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Table 1-2

ENVIRONMENTAL COMPARISON OF FINAL ALTERNATIVES

Alternatives and Related Sites	Environmental Factors															
	[illegible]	Topography	Soils	Surface Waters	Public Water Supply	Flood Hazard Areas	Groundwater	Air Quality	Noise Quality	Biological Resources	Wetlands	Cultural Resources	Socioeconomic Factors	Energy and Resources	Land Use
A [illegible]	No impacts anticipated	No impacts anticipated	Construction problems anticipated for collection system, regional plant site has poor soil conditions	Limited improvement in area water quality due to upgrading of existing treatment plants	No adverse impacts anticipated due to spatial separation of outfall and water intakes, degree of treatment provided, and river flow.	Cousins North site is in 100 year floodplain and has a flood elevation of 3.5 feet (12.26/75).	No impacts anticipated. Groundwater is not used for potable water supply	Fugitive dust and equipment exhaust emissions anticipated. Impacts will be minor and mitigation measures available.	Construction activities will produce noise impacts of short-term in duration. Mitigating measures available.	Adverse impact due to minor disruption of terrestrial habitat.	Cousins North site is not a wetland area.	No impacts anticipated	The final alternatives were evaluated with respect to a number of socioeconomic factors. The impacts of the final alternatives are described in more detail below. **Population** Growth will be due to economic and social urbanization patterns and planning efforts, not a direct result of project alternatives. **Recreation** Alternatives could have indirect impact on parks & recreation facilities, possible adverse impact on Jean Lafitte Park from alternatives B and E. **Employment and Income Characteristics** Possible adverse impacts to area's fishing industry from alternatives B and E, generally beneficial impacts due to other alternatives **Education** No direct effect due to any of the alternatives, possible indirect effect due to population growth **Public Services and Utilities** No adverse direct or indirect effects due to project alternatives **Public Health and Safety** Alternatives will improve existing conditions and be beneficial for public health, sewage back-ups in homes should be eliminated. **Transportation** Temporary traffic disruption during construction for all alternatives, possible conflict at U.S. 90 site with proposed new Mississippi River bridge crossing Potential slowing of growth due to need to provide adequate sewer facilities as development occurs. The basic economic impacts of this alternative discussed in Ch. 6	Annual electricity requirement is 10.7 x 10^6 KWH/yr Polymer-42,800 lb/yr Chlorine-0 Tons/yr Annual electricity requirement is 22.5 x 10^6 KWH/yr Polymer-63,000 lb/yr Chlorine-3,816 Tons/yr Annual electricity requirement is 25.7 x 10^6 KWH/yr Polymer-63,000 lb/yr Chlorine-0 Tons/yr Annual electricity requirement is 23.2 x 10^6 KWH/yr Polymer-55,600 lb/yr Chlorine-0 Tons/yr Annual electricity requirement is 22.9 x 10^6 KWH/yr Polymer-63,000 lb/yr Chlorine-385 Tons/yr Annual electricity requirement is 19.7 x 10^6 KWH/yr Polymer-63,000 lb/yr Chlorine-0 Tons/yr Annual electricity requirement is 19.8 x 10^6 KWH/yr Polymer-63,000 lb/yr Chlorine-0 Tons/yr Annual electricity requirement is 21.1 x 10^6 KWH/yr Polymer-63,000 lb/yr Chlorine-0 Tons/yr Annual electricity requirement is 21.1 x 10^6 KWH/yr Polymer-63,000 lb/yr Chlorine-0 Tons/yr Annual electricity requirement is 20.2 x 10^6 KWH/yr Polymer-63,000 lb/yr Chlorine-0 Tons/yr Annual electricity requirement is 19.2 x 10^6 KWH/yr Polymer-4,900 lb/yr Chlorine-1 Tons/yr Annual electricity requirement is 3.9 x 10^6 KWH/yr Polymer-22,000 lb/yr Chlorine-754 Tons/yr	In order to compare the site specific effects from each alternative, a set of evaluation criteria was developed and included: ? Quantity of land needed at each site ? Total amount of land for each alternative ? Compatibility with existing uses ? Compatibility with planned uses ? Community attitudes ? Aesthetic considerations This analysis allowed the alternatives to be grouped according to level of adverse site-specific impacts Least Adverse - A, H, G, J Some Adverse - B, D, E Most Adverse - C, G, & I No impacts anticipated
B [illegible]	No impacts anticipated	No impacts anticipated	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Hero Cut-off site is in 100 year floodplain and has a flood elevation of 3.5 feet (7/9/74)	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Hero Cut-off site is in a wetland area	No impacts anticipated			
C [illegible]	No impacts anticipated	No impacts anticipated	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Timberlane site is in 100 year floodplain and has a flood elevation level of 3.5 feet (10/31/72)	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Timberlane site is not a wetland area	No impacts anticipated			
D [illegible]	No impacts anticipated	Same as Alternative A above	Same as Alternative A above	Same as Alternative A for Cousins North only. Churchill Farms would discharge to Barataria Basin	Cousins North site is in 100 year floodplain and has a flood elevation level of 3.5 feet(7/9/75) Churchill Farms site is in 100 year floodplain and has a flood elevation level of 4.0 feet (10/31/72). Possible adverse impacts on adjacent areas	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Cousins North site is not a wetland area, Churchill Farms site has both wetland and non wetland areas	No impacts anticipated			
E [illegible]	No impacts anticipated	No impacts anticipated	Same as Alternative A above	Same as Alternative A above	U.S. 90 site not in 100 year floodplain, Hero Cut off site is in 100 year floodplain and has a flood elevation level of 3.5 feet (7/9/75).	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 site is not a wetland area, Hero Cut off site is a wetland area.	No impacts anticipated.			
F [illegible]	No impacts anticipated	Same as Alternative E above	Same as Alternative A above	Same as Alternative A above	Cousins North site is in 100 year floodplain and has a flood elevation of 3.5 feet (12/26/75). U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 and Cousins North sites are both non-wetland areas.	No impacts anticipated.			
G [illegible]	No impacts anticipated	Same as Alternative E above	Same as Alternative A above	Same as Alternative A above	Timberlane site is in 100 year floodplain and has a flood elevation of 3.5 feet (10/31/72). U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 and Timberlane sites are both non wetland areas.	No impacts anticipated			
H [illegible]	No impacts anticipated	Construction problems anticipated for collection system, regional plant site at U.S. 90 has poor soil conditions	Same as Alternative A above	Same as Alternative A above	U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 site is not a wetland area.	No impacts anticipated				
I [illegible]	No impacts anticipated	Same as F above except soil conditions for Joint I/I plant at U.S. 90 site are somewhat better than other sites.	Same as Alternative A above	Same as Alternative A above	Same as Alternative C above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90 and Timberlane sites are non-wetland areas.	No impacts anticipated				
J [illegible]	No impacts anticipated	Same as Alternative I above	Same as Alternative A above	Same as Alternative A above	Belvin Tract is in 100 year floodplain and has a flood elevation of 4.5 feet (10/31/72). Cousins North site is in 100 year floodplain and has a flood elevation of 3.5 feet (12/26/75). U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Belvin Tract is wetland except for southwestern corner, Cousins North and U.S. 90 are both non-wetland	No impacts anticipated				
K [illegible]	No impacts anticipated	No impacts anticipated	Same as Alternative E above	Same as Alternative A above	Timberlane is in 100 year floodplain and has a flood elevation of 3.5 feet (10/31/72), Cousins North is in 100 year floodplain and has a flood elevation of 3.5 feet (12/26/75). U.S. 90 site is not in 100 year floodplain	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	Same as Alternative A above	U.S. 90, Cousins North and Timberlane sites are non wetland areas	No impacts anticipated				
L [illegible]	No impacts anticipated	No impacts anticipated	No impacts anticipated	Surface water quality will decrease.	No impacts anticipated (no discharge to the Mississippi River)	No increased impacts anticipated beyond flooding now experienced at existing plants	No significant impact anticipated	No significant impacts if SIP recommendations are followed	Increased noise levels expected in areas adjacent to existing treatment facilities due to necessary expansion of existing plants for future flows	Continued degradation of Barataria Basin	No impacts anticipated.	No impacts anticipated			No impacts anticipated

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3.0 INTRODUCTION, PURPOSE AND NEED

On March 26, 1982 the U.S. Environmental Protection Agency (EPA) filed a Draft Environmental Impact Statement (EPA 906/9-82-001) regarding wastewater treatment facilities for Jefferson Parish, West Bank, Louisiana. Since that time the Parish has evaluated a new alternative involving the renovation and expansion of the three largest wastewater treatment facilities--Bridge City, Harvey and Marrero--with Parish generated funds. This new option is the Parish's preferred course of action.

This Supplemental Draft EIS provides an environmental evaluation of the Parish's preferred alternative. Since this Supplemental EIS builds upon information contained in the March 1982 Draft EIS, the Draft EIS is incorporated by reference.

Should the public review of the Supplemental Draft EIS result in only minor changes, the Final EIS will consist of a revised summary, revisions to the Supplemental Draft EIS and EPA's responses to the comments made. Therefore, the Supplemental Draft EIS as well as the March 1982 Draft EIS should be retained for possible use in conjunction with the Final EIS.

As discussed in Chapter 4 of the Draft EIS, the 14 existing treatment facilities on the West Bank are inadequate for properly treating current wastewater flows. Most of the plants are approaching 20 years in operation and are in need of major repairs and renovations. Improved chlorination systems and backup electrical power supplies are needed at all plants. Other major problems include: inappropriate construction techniques used on some basins causing major leaks; failed structures; clogged underdrains; extensive structural steel corrosion; and inoperative pumps and air compressors. In addition, half of the facilities are currently handling hydraulic loads in excess of their design capacities. Because Jefferson Parish's wastewater treatment facilities must be in compliance with Section 301 of the Clean Water Act requiring publicly owned treatment works to attain standards of the Act by July 1, 1988, the Parish has developed a new alternative for meeting their needs through 2005.

4.0 DESCRIPTION AND EVALUATION OF ALTERNATIVE

The Draft EIS for the Wastewater Treatment Facilities on the West Bank of Jefferson Parish included an extensive discussion of the existing sewage treatment facilities. The information in Chapter 4 of the Draft EIS included:

- o A description of the existing 14-plant treatment facilities.
- o A description of the collection system, including the number of lift stations.
- o Tabulation of the existing and the projected flows.

In addition to documentation of existing conditions on the West Bank, the Draft EIS also discussed a series of alternatives for construction of new facilities. These alternatives included different types of treatment methods, including land treatment and alternative locations for the facilities. Ultimately, 12 alternative methods of treatment and site locations were analyzed in the Draft EIS. The results of the analysis are shown in Table 1-2.

Due to the poor prospects of receiving Federal funds under Title II of the Clean Water Act and because Jefferson Parish's wastewater treatment facilities must be in compliance with Congressional mandates, Jefferson Parish has prepared an alternate program. Because $15 to $18 million of Parish-generated funds are currently being spent to renovate the three largest existing facilities and since this option now appears to be the most cost-effective alternative, Jefferson Parish has elected to expand those facilities to meet the Parish's need through the year 2005.

4.1 DESCRIPTION OF THE PARISH'S PREFERRED ALTERNATIVE

To provide a method of analysis for the entire West Bank area, the facilities plan engineer divided the West Bank into three zones. The zones are described by the following:

Zone 1 - Includes all of the area bounded by St. Charles Parish on the west, the City of Westwego on the east, the Mississippi River on the north and Lake Cataouatche Levee on the south.

Zone 2 - Includes the area bounded by the Mississippi River on the north, the Harvey Canal on the east and the proposed hurricane protection levee and the City of Westwego on the south and west.

Zone 3 - Includes the area bounded by the Harvey Canal to the west, Plaquemines Parish on the southeast, Orleans Parish on the northeast and the Mississippi River on the north. The City of Gretna is excluded from the analysis (see Figure 1-1).

It is proposed that the three existing plants, one in each zone located at Bridge City in Zone 1, Marrero in Zone 2 and Harvey in Zone 3 be upgraded to treat projected year 2005 sewage flow to secondary standards. All other existing treatment plants on the West Bank are to be eventually abandoned. Effluents will be discharged to the Mississippi River from all three facilities, except for Harvey where an alternate discharge to the Harvey Canal is being analyzed. The proposed treatment facilities are described below.

Bridge City: Construction is currently in progress to upgrade the facilities at this location from 1.04 to 1.96 million gallons per day (MGD) capacity. Under Alternative N, the facility would experience an additional increase of 5.31 MGD giving that facility a total capacity of 7.27 MGD. A trickling filter biological treatment with anaerobic sludge digestion would be utilized to treat sewage flows. A belt press for de-watering sludge originating from both the existing and proposed facility would be utilized on-site. Sludge would be disposed at the Parish-owned landfill permitted by the Louisiana Department of Natural Resources. Two alternative sites are being considered for this expansion. Site A lies due west of the existing plant and is currently occupied by the Louisiana Department of Transportation and Development. Permanent structures currently on this site will require removal. Site B lies due north of the existing plant and is currently vacant. Residential subdivision plans which include site B have been previously submitted to the Parish.

Marrero: Construction is currently in progress to increase the capacity of this plant from 4.35 to 9.60 MGD. It is proposed under Alternative N that this plant will be further upgraded from 9.60 to 12.51 MGD, an increase of 2.91 MGD.

A trickling filter biological treatment with aerobic sludge digestion with a belt press sludge de-watering system would be utilized at the site. The sludge would be disposed in a Parish-owned landfill permitted by the Louisiana Department of Natural Resources. The proposed expansion site is currently vacant.

Harvey: Construction is currently in progress to upgrade this plant to 3.3 MGD capacity. It is proposed that this facility be upgraded to 10.8 MGD. A trickling filter biological treatment with anaerobic sludge digestion would be utilized. Sludge from the existing 3.3 MGD plant would be de-watered on existing sludge beds. Sludge from the proposed 7.5 MGD expansion would be de-watered by a belt press. Dry sludge from both sites would be disposed in the Parish-owned landfill permitted by the Louisiana Department of Natural Resources. The proposed expansion site is currently being used as a pipe storage area and no permanent structures exist on the site.

The proposed conveyance system and pump station locations and forced main information are shown on Table 4-1.

The costs to implement the alternatives are shown in Table 4-2.

4.2 COMPARISON TO PREVIOUS ALTERNATIVES

The Draft EIS addressed the environmental impacts of 12 alternatives, A through L. Those alternatives involved various combinations of sites, methods of treatment and discharge. Subsequent to preparation of the Draft EIS, another alternative, Alternative M, was analyzed as a possible option by the Parish. This alternative involved primarily the use of a single treatment facility at a location designated as the Switchyard Site. This location was near the U.S. 90 site described in the Draft EIS. However, when it was realized that Parish-generated funds were necessary for upgrading the West Bank sewerage treatment system, this alternative was no longer feasible and was dropped from further analysis. Appendix C is a summary of the environmental impacts of the Switchyard Site.

TABLE 4-1

PROPOSED CONVEYANCE SYSTEM FOR ALTERNATIVE N

Station	Firm Capacity (gmp)	Discharge Force Main Size (in)	Discharge Force Main Length (ft)
15	3,670	16	4,350
Live Oak	4,880	16	2,400
Floral Acres	5,370	18	9,750
Modern Farms	5,460	20	11,000
River Road	10,440	30	13,480
17	240	6	650
18a	1,530	10	4,450
18b	2,740	14	7,500
Avondale South	3,790	14	4,000
19	130	4	3,450
Avondale North	870	8	2,000
21	1,460	10	1,490
22	1,660	10	1,930
Bridge City Effluent	12,830	24	3,300
32	330	6	3,900
33	3,040	16	5,170
Bayou Des Familles	4,060	18	9,750
K-14-1	7,320	24	9,410
Marrero Effluent	21,720	36	10,020
23	1,560	10	4,230
29	850	8	1,400
26	1,470	10	8,000
Woodmere	4,550	18	12,000
Lapalco	500	10	9,210
Flora Haze	190	6	6,700
TT1	1,530	12	5,250
TT2	5,690	20	8,980
36	520	8	5,490
Meadowbrook	8,940	24	11,250
35	5,350	18	7,870
Harvey Effluent-River	18,540	36	13,990
Harvey Effluent-Canal	18,540	24	2,500

TABLE 4-2

SUMMARY OF ALTERNATIVE N REQUIREMENTS

Costs

River Discharge Option	
Capital Cost	$66,205,000
Annual Operations and Maintenance Cost	4,004,000
Equivalent Uniform Annual Cost	9,926,000
River/Harvey Canal Alternative Discharge	
Capital Cost	$64,648,000
Annual Operations and Maintenance Cost	4,004,000
Equivalent Uniform Annual Cost	9,779,000
Energy Use	15,100,000 KWH/yr
Chemical Use	43,000 lb polymer/yr
	0 tons chlorine/yr

Land Use[a]

Bridge City STP -	7.0 acres
Marrero STP	18.0 acres
Harvey STP	12.5 acres
Total	37.5 acres

(a) This represents the total land use including the existing sites.

Analysis in the Draft EIS indicated that most of the alternatives would have similar environmental impacts. Generally there would be an improvement in surface water quality and related biological resources due to elimination of the current method of treatment and discharge to the Barataria Basin. In addition, there would be minor impacts to air and sound quality due to the construction of the facilities and of the conveyance and discharge system. Generally, socioeconomic impacts would be minor. The land use impacts involving land treatment would have the most adverse impacts, due to limited availability of developable land on the West Bank. A single regional plant would have the least adverse impacts, since the least amount of land would be required under these alternatives.

Unlike the 12 alternatives contained in the Draft EIS and supplemental Alternative M, Alternative N involves additions to existing treatment plants rather than locating facilities at new sites. Detailed analyses of the environmental impacts of this alternative are contained in Chapter 5.0 of this Supplemental DEIS. Generally, these impacts are similar to those of the previously evaluated alternatives. Table 1-3 contains a summary comparison of the anticipated environmental impacts of the final and supplemental alternatives.

Wastewater discharges proposed for Alternative N will be to the Mississippi River. Therefore an improvement in surface water quality and related biological resources in the Barataria Basin is expected. Adverse impacts related to construction such as dust, noise, and traffic disruption will occur. However, there are measures which can be implemented to lessen these impacts.

Generally, socioeconomic impacts would be minor. No adverse impacts to wetlands or cultural resources are anticipated due to Alternative N. Where nearby existing land uses are residential or commercial, additions to the existing treatment plants would, most likely, be perceived as an incompatible use. However, such incompatibility can be mitigated by appropriate plant design to minimize odor, visibility, potential hazards and the likelihood of trespassers.

5.0 ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE

The data included in this Supplemental Draft EIS is based upon information contained in Chapter 6 of the Draft EIS. Much of the information in the Supplemental Draft EIS relates to regional data which have been supplemented with site-specific information, where appropriate.

The impact analysis for this Supplemental Draft EIS is based upon evaluation of the impacts for the rehabilitation/renovation of the three existing sewage treatment plant sites, Bridge City, Marrero and Harvey. Impacts of the 12 previous alternatives considered are contained in the Draft EIS. Since the Draft EIS evaluated the "Future Conditions Without the Project" or the No Action Alternative, analysis of this alternative is not addressed in detail in this Supplemental Draft EIS.

5.1 EARTH RESOURCES

5.1.1 Geology

Existing Conditions. The landforms of the West Bank of Jefferson Parish were created by the dynamic interaction of sedimentation and channel change of the Mississippi River, by wave and current action of the Gulf of Mexico, and by soil subsidence. The planning area is located in the present Mississippi River Deltic Plain. Five major delta formations have been defined as a consequence of the six thousand year history of deposition by the Mississippi River (Louisiana Department of Transportation and Development, 1978). All have contributed to land formation on the West Bank to some degree. The natural cycle of deltaic formation was artificially stopped by man-made levee systems constructed over the natural levee on both sides of the present channel of the river. Together with the artificial damming of parts of Bayou Lafourche in 1904, the levees have defined the hydrology of the Barataria Basin and have restricted freshwater inflow and desposition of sediments in the Basin.

In the northern part of the planning area, where most of the wastewater treatment facilities related to this alternative are located, elevations are highest along the natural levees. The top stratum, in a north-south direction,

consists of natural levee, swamp, marsh, abandoned distributary, interdistributary, intradelta, prodelta, bay sound, and estuarine and near-shore Gulf deposits. Generally, soils closer to the Mississippi River have lower organic content and are less susceptible to soil subsidence. The organic content of the soils increases with the distance to the south from the Mississippi River, with subsequently higher subsidence potential. Land subsidence has also resulted from various reclamation practices such as diking or draining which lead to drying, shrinking and oxidizing of the organic soils.

Analysis of Alternatives. The implementation of Alternative N should have no adverse impact upon the geologic landforms in the planning area or surrounding areas.

5.1.2 Topography

Existing Conditions. The topography of the planning area is typical of the Mississippi River deltaic plain and of the coastal zone. Elevations range from a maximum of 13 feet above mean sea level (msl) to a minimum of 10 feet below msl. The highest points are located along the natural levee of the Mississippi River. Elevations to the south of the levee generally decrease to five feet msl or less within 2,000 feet of the Mississippi River. A strong relationship also exists between elevations and locations of soil types. Due to subsidence, leveed and drained organic soils with elevations below sea level require pumping to maintain the natural flow to the south. Parts of the planning area have been incorporated into pumped drainage districts for many years to accommodate residential and commercial developments.

The Bridge City expansion site lies to the north and west of the existing Bridge City wastewater treatment plant. The ground surface elevations of the northern portion are low and surface water tends to pond in isolated areas (Beavers, 1983). The western portion of the expansion area is currently in use by the Louisiana Department of Transportation and Development as a storage yard. The area has been raised in elevation by the addition of fill approximately two to three feet above the surrounding area and the surface of the plot is shell paved (Beavers, 1983).

The Marrero expansion site is located adjacent to and south of the existing Marrero Wastewater Treatment Plant. This site is essentially level and the eastern portion is currently used as a parking lot by the Jefferson Parish Public Utilities Department.

The Harvey expansion site is located west and south of the existing Harvey Wastewater Treatment Plant. This essentially level parcel is covered on the north by shell and broken paving and on the south by weeds (Beavers, 1983).

Analysis of Alternatives. Construction of the conveyance system associated with Alternative N will have no long-term impact upon the topography of the study area. The proposed treatment plant expansion sites are all relatively level and while construction activities may alter the topography slightly, the changes will be insignificant.

The western portion of the Bridge City expansion area is already raised two or three feet above the grade of the surrounding area and is used as a storage yard. Some fill may be utilized if the northern Bridge City expansion site is used due to the low surface elevations. Both the Marrero and Harvey expansion sites are also level with the former partly used as a parking lot and the latter partially covered with paving.

5.1.3 Soils

Existing Conditions. There are 15 soil types in the planning area. They are closely associated geographically with their geologic environments, and more specifically to the natural cycle of deltaic formation. Loamy soils are generally found along the higher ridges of the natural levees, with clayey soils in the lower areas. The organic content of the soil increases with distance from the natural levees. Within the planning area, the soils with higher organic content have a greater potential for subsidence if drained because of compaction and oxidation. The dry organic layers may burn when drained.

The Bridge City site is located in an area of poorly drained, firm mineral soils, where the slope is less than one percent (U.S. Department of

Agriculture, Soil Conservation Service, 1983). These soils are very slowly permeable. The water table is between the surface and a depth of two feet below the surface from December to April. The shrink-swell potential is very high. Most of these soils are already developed for urban use.

The Marrero site is located in an area of level, poorly drained mineral soil, where the slope is less than 0.5 percent (U.S. Department of Agriculture, Soil Conservation Service, 1983). The water table is maintained at a depth of about one to three feet below the surface. Permeability is very slow. The soils have a very high shrink-swell potential and a medium total subsidence potential. Most of these soils have already been developed for urban uses.

The Harvey site is located in an area of level, poorly drained mineral soils where the slope is less than 0.5 percent (U.S. Department of Agriculture, Soil Conservation Service, 1983). The water table is maintained at a depth of about one to three feet below the surface. Permeability is very slow in the soil material, but water flows rapidly through the network of cracks. The total subsidence potential is medium to high; the shrink-swell potential is very high. Most of these soils have already been developed for commercial and residential uses.

Analysis of Alternatives. The construction of the conveyance system for this alternative will not have significant long-term impacts on the soils in the planning area. However, construction activities will encounter drainage and shallow excavation problems such as logs and stumps and poor side slope stability. The low bearing strength, high water table, very high shrink-swell potential of mineral layers, and very high subsidence potential of soils will also present construction problems. To effectively deal with these conditions, proper procedures should be incorporated into the engineering design and construction procedures for the project.

Due to the generally poor soil characteristics at the three sites, it is likely that piling will be utilized to adequately support the proposed facilities. An in-depth investigation of soil conditions at each site, including soil borings, is anticipated during the project design phase.

Soil loss will occur at all construction sites. Removal of topsoil and organic soil layers can reduce the productivity of the soil, destroy ground cover vegetation, and create unsightly conditions. The erosion of soil into nearby surface waters can affect water quality and disrupt the aquatic ecosystem. Using the measures described below, soil loss and associated adverse effects can be minimized by: developing plans to fit drainage patterns, topography, and soils of the construction sites; minimizing removal of trees and surface vegetation; diverting runoff around exposed areas; constructing impoundments to trap sediment and reduce runoff peaks before flow leaves the construction site; limiting exposed land and duration of exposure; protecting exposed areas and reducing sediment transport by quick re-establishment of vegetative cover or by hay mulching, and by establishing permanent vegetation.

5.1.4 Prime Agricultural Lands

Existing Conditions. According to the U.S. Department of Agriculture, Soil Conservation Service, approximately 32,640 acres of prime agricultural lands exist on the West Bank of Jefferson Parish, of which approximately 50 acres were being farmed in 1979. The only expansion site to contain these important lands is Bridge City.

Analysis of Alternatives. The proposed expansion at Bridge City and construction of the conveyance system will directly impact as much as 35 acres of prime agricultural land. Additionally, the construction and operation of the Parish's preferred alternative will facilitate future development on the remaining 32,600 acres of prime farmland. It is believed, however, that development of these valuable lands would occur without the proposed wastewater treatment facilities improvements since these areas contain the most suitable soils available on the West Bank.

5.2 WATER RESOURCES

5.2.1 Surface Water

Existing Conditions. The Louisiana Department of Natural Resources (DNR) has promulgated general water quality criteria governing all waters of the

State of Louisiana. In setting these standards the following parameters were considered: color; aesthetics; floating, suspended and settleable solids; taste and odor; toxic substances; oils and greases; foaming or frothing materials; nutrients; turbidity and other materials.

The surface waters of the planning area are part of either the Mississippi River Basin or the Barataria Basin. The portion of the Mississippi River that lies within the boundaries of the planning area, or which is immediately affected by discharges from it, is entirely designated for Secondary Contact Recreation, Propagation of Fish and Wildlife and Domestic Raw Water Supply uses. Although presently classified as "water quality limited" for phenols and heavy metals, it is not "water quality limited" for dissolved oxygen. "Water quality limited" means the water segment is not meeting applicable water quality standards and is not expected to meet applicable standards even after application of the effluent limitations required by the Clean Water Act.

There are two sets of water quality criteria and water uses for segments of the Barataria Basin within the planning area. One is for closed waters which are encountered in the northern part of the basin and for which the state has established numerical standards for seven criteria. The second set of criteria applies to open waters which are also oyster growing areas and for which dissolved oxygen is the only numerically set parameter. All segments in the Barataria Basin were classified as "effluent limited" in the 1980 Water Quality Management Plan (Water Resources Engineers, 1980). "Effluent limited" infers that water quality is meeting and will continue to meet applicable standards or that water quality will meet applicable standards after application of the effluent limitations required by the Clean Water Act (Stanley Consultants, Inc., 1980).

Water quality samples have been collected for the planning area stream segments by the EPA, U.S. Geological Survey, U.S. Army Corps of Engineers and the Louisiana Departments of Wildilfe and Fisheries and Health and Human Resources. Findings based on this sampling are summarized below.

In the Barataria Basin, water is transported and discharged into the backwaters through natural bodies such as Bayous Segnette and des Allemands, or through

drainage canals in the populated portion of the planning area such as Cousins and Harvey Canals. Data collected at several stations located on Bayou Segnette indicated that dissolved oxygen (DO) standards were exceeded. Allowable limits for total dissolved solids and fecal coliforms were also often exceeded. The chloride criterion was repeatedly exceeded, pointing to saltwater intrusion. Elevated chloride concentrations indicated that saltwater intrusion occurred in the lower reaches. The water quality in Bayou des Allemands is generally good, with high DO levels and only moderate levels of five day biochemical oxygen demand (BOD_5) and low nutrient levels. Data for the Gulf Intracoastal Waterway from Bayou Perot west to Bayou Lafourche show high DO levels and moderate levels of BOD_5 and nutrients.

Stormwater from various portions of the West Bank population centers is removed through numerous drainage canals and some bayous. The canals also serve as discharge points for municipal and industrial wastewater. During low flow conditions, the source of water in the canals is primarily from wastewater discharges. The results of sampling revealed that the fecal coliform levels consistently exceeded applicable State standards. The level of BOD was rather high with the exception of the Brown Point station. In Cousins Canal and at Crown Point, the ratio of chemical oxygen demand (COD) to BOD indicated that concentrations of chemically oxidizable materials were above the naturally-occurring level. In Bayou Segnette, a more natural ratio prevailed. The BOD and COD data indicated high probability of low DO levels in the above waterways. No unusually high levels of metals were observed.

In the Mississippi River, monitoring stations are located upriver of Jefferson Parish at Luling and downstream from the Jefferson Parish line at Violet and Belle Chasse. Available data from the past 10 years indicated that phenol has been a major problem and that total and fecal coliform concentrations have consistently exceeded criteria and do not appear to be decreasing. Lead, cadmium, and cyanide concentrations have exceeded recommended standards. Temperature, DO, pH, total dissolved solids (TDS), chloride, sulfate, mercury, and selenium concentrations have infrequently exceeded recommended standards. The segment of the Mississippi River below the Huey P. Long Bridge has experienced elevated concentrations of chloride, TDS and sulfate. Silver and DDT were not observed to exceed recommended standards. Taste and odor problems in drinking water from the Mississippi River have been reported.

Analysis of Alternatives. There are two potential locations in the planning area for the surface discharge of treated effluent from wastewater treatment plants. Discharge to the Mississippi River presents one possibility and discharge to the various drainage canals and bayous which drain into the Barataria Basin constitutes the other. Effluent limits for discharges to these water bodies have been established in accordance with the Louisiana Department of Natural Resources Water Quality Management (208) Plan and EPA Water Quality Guidelines. With regard to river discharge, since the stream is not "water quality limited" for dissolved oxygen, only secondary treatment levels are required. Secondary treatment is defined generally as a 30-day average not to exceed 30 mg/l each of BOD and total suspended solids (TSS) in the effluent.

Unlike the river, the drainage canals and bayous have low flows and dilution potential and drain into the environmentally sensitive shellfish areas of the Barataria Basin. Therefore, discharges to these waters presently require more stringent treatment levels than discharges to the river. These treatment standards, known as advanced treatment, require a 30-day average of 10 mg/l each BOD and TSS in the effluent. The State will reportedly be conducting a re-evaluation of the 208 plan with respect to treatment levels for discharges to the Harvey Canal in the near future.

All of the existing wastewater treatment plants in the planning area discharge treated effluent to the drainage canal/bayou system. The current treatment plants, at their present size, will be grossly overloaded by the end of the planning period (year 2005), if the current population growth trend continues. Each facility will, at best, properly treat flow at or below its design capacity and will either totally bypass additional flow or pass it through the system with inadequate treatment.

The facilities plan engineer has estimated the total amount of pollution that will be added to the various receiving streams, if no-action is taken to improve the existing facilities. The amount and characteristics of treated and untreated wastewater that will be discharged by each plant to its receiving stream were estimated. Adding all the contributory discharges of each receiving stream, the total daily pollution loadings for each waterbody are given in Table 5-1.

TABLE 5-1

"NO ACTION" PLAN YEAR 2005
DISCHARGE POLLUTION LOADINGS

Waterbody	Total Discharge Flow (mgd)	BOD	COD	TSS	NH_3	PO_4	TKN	Grease
Bayou Verret	2.62	3,945	10,165	3,945	520	390	960	1,565
Bayou Segnette	14.15	13,745	42,360	13,745	2,380	2,070	4,815	5,515
Bayou Barataria	12.14	13,165	38,145	13,165	2,090	1,705	4,135	5,275
Bayou des Familles	1.67	1,880	5,350	1,880	275	220	540	710

Source: URS Company 1983.

Alternative N contains two options which make use of one or both of the alternative discharge locations. In the first option, the effluent from the three proposed treatment plants at Bridge City, Marrero and Havey would be discharged to the Mississippi River. This would be accomplished by pumping the effluent from each of the three sites through force mains to the river for discharge. The second option would also contain river discharge for Bridge City and Marrero, however, the effluent from Harvey would be pumped for discharge to the Harvey Canal (and ultimately to the Barataria Basin). In all cases, the proposed treatment facilities would provide secondary treatment. The latter option has been retained by the Parish in the event that the State's 208 re-evaluation allows secondary treatment discharge to the Harvey Canal.

The river discharge option of Alternative N will have a beneficial effect on the water quality of the Barataria Basin by transferring all of the existing effluent discharges (and the resultant pollutant load) from the basin. The proposed treatment facilities discharging to the Mississippi River will be designed to achieve secondary treatment levels. The river/canal discharge option will transfer approximately 65% of the estimated future effluent discharges from the basin. The remaining 35% from the Harvey facility will be treated to secondary treatment levels prior to discharge, if allowed by the State. Therefore, there will be a benefit to the Barataria Basin water quality from this option.

No significant adverse impacts on Mississippi River water quality are anticipated from either Alternative N option because of the degree of treatment to be provided and the high flow rate in the river. Background levels of pollutants should not be raised to any noticeable degree by effluent discharge even during periods of low river flow.

Exact effluent limitations for the three proposed wastewater treatment facilities will be developed when applications for National Pollutant Discharge Elimination System (NPDES) permits are filed for the proposed facilities. In addition to defining effluent limitations, the NPDES permits will require the Parish to monitor various parameters in the effluent discharge by the plants to ensure compliance with the permit requirements. The monitoring results obtained by the Parish will be submitted to the appropriate State and Federal agencies on a monthly basis.

During construction of the wastewater treatment facilities and conveyance system, minor short-term adverse impacts to nearby surface waters could occur as a result of soil erosion. However, it is expected that good construction practices will be followed, thereby reducing these impacts.

5.2.2 Water Supply

Existing Conditions. Five public water supply intakes on the Mississippi River are located in Jefferson Parish. Characteristics of these systems are listed in Table 5-2.

Analysis of Alternatives. The proposed effluent discharges to the Mississippi River pose no adverse impacts for existing water supply intakes within the planning area or downstream. Wastewater effluent to be discharged to the river will receive secondary treatment. The spatial separation of wastewater outfall locations and existing water supply intakes, along with the magnitude of Mississippi River flow rates, will allow for dilutions of effluents to such a degree that the impact on water quality at intake points will be minimal. The approximate locations of the proposed sewage outfalls and the locations of the existing water intakes on the Mississippi River are shown in Figure 5-1. In addition, the facilities plan engineer has recommended that effluent discharged to the river not be chlorinated because it is undesirable to have any quantity of trihalomethanes in a drinking water source.

5.2.3 Floodplains

Existing Conditions. Floodplains are defined as lowlands and the relatively flat areas adjoining inland and coastal waters. The 100-year floodplain is defined as the area subject to a 1% or greater chance of flooding in any given year. The 500-year floodplain is defined as the area subject to a 0.2% or greater chance of flooding in any given year. Floodplains are delineated as flood hazard areas on maps prepared by the U.S. Department of Housing and Urban Development (HUD). Approximately 70% of the planning area falls within the 100-year floodplain. This area is primarily concentrated in the southern portions of the planning area.

TABLE 5-2

MISSISSIPPI RIVER SURFACE WATER INTAKES IN JEFFERSON PARISH

No.	System and Name of Responsible Agency	Communities Served	Water Sources	Quantity (MGD)	Approximate Number of Customers
13	Gretna	Gretna	96.7 AHP[a]	3.700	27,000
14	Louisiana Gas Service Company	Harvey	Surface[b]	0.212	2,340
15	District 2, Jefferson Parish West Bank	Jefferson Parish on West Bank of Mississippi River	99.1 AHP	8.100	45,400
16	Westwego	Westwego	101.5 AHP	2.200	15,000
17	New Orleans Sewerage & Water Board's Carollton Plant	New Orleans	104.7 AHP	130.078	663,850
18	District 1, Jefferson Parish East Bank	Jefferson Parish on East Bank of Mississippi River	105.4 AHP	22.800	200,000

(a) Indicates number of miles above Head of Passes on the Mississippi River.
(b) Not located on the Mississippi River.

Source: U.S. Army Corps of Engineers, 1975.

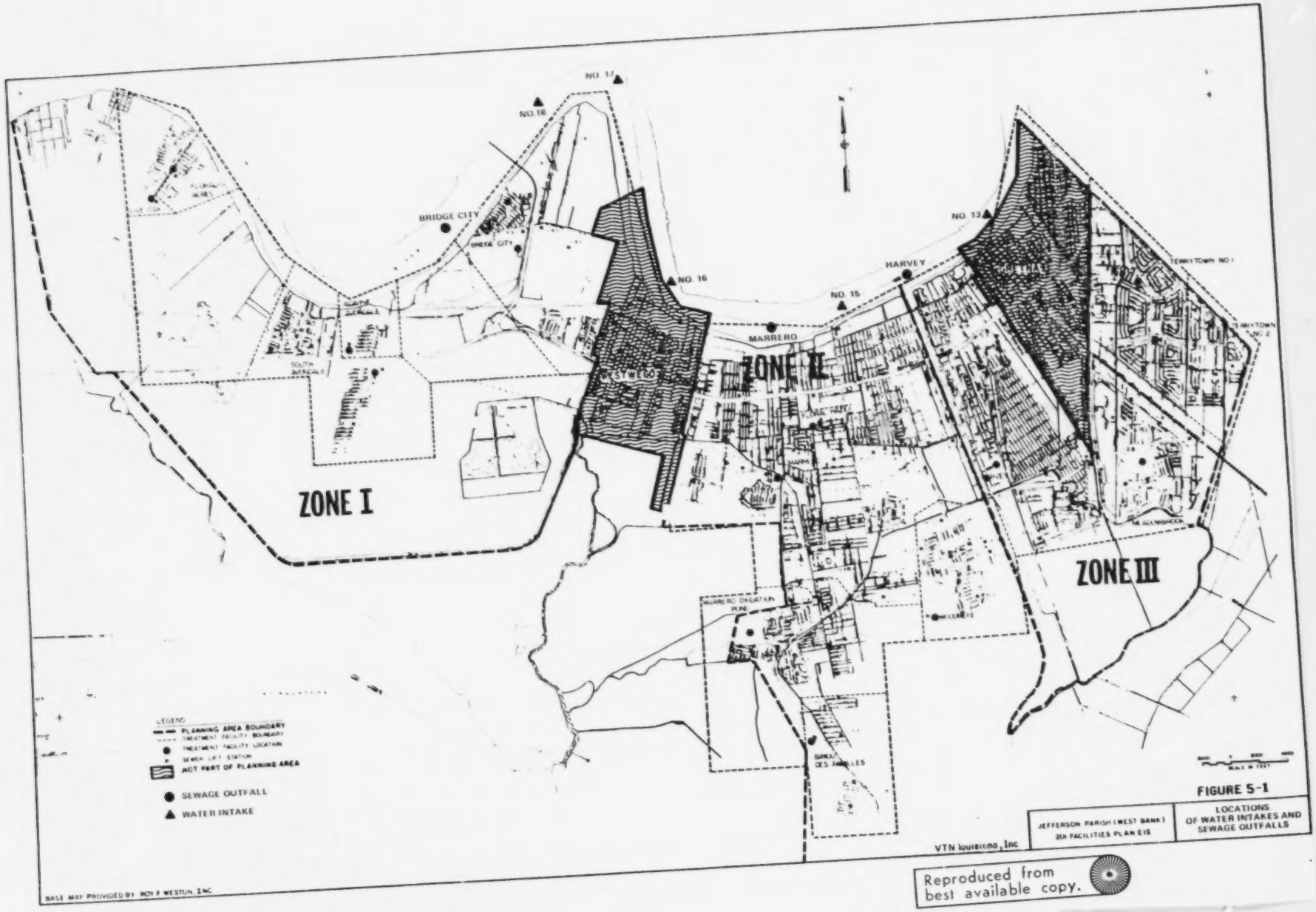

FIGURE 5-1

JEFFERSON PARISH (WEST BANK) 201 FACILITIES PLAN EIS	LOCATIONS OF WATER INTAKES AND SEWAGE OUTFALLS

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Analysis of Alternatives. All of the proposed treatment plant expansion sites were assessed in terms of flood potential. This was done utilizing the flood hazard boundary map of Jefferson Parish published by the U.S. Deprtment of Housing and Urban Development, Federal Insurance Administration (FIA) in 1976. For the various flood zone designations used in the following site assessments, refer to Table 5-3.

The Bridge City expansion site is located outside the 500-year flood zone and is located in Zone C. The Marrero expansion site is located in Zone A-2 which is an area of 100-year flood. The base flood elevation was recorded at 0.3 feet on July 9, 1976. The Harvey expansion site is located in Zone AO which is an area of 100-year shallow flooding where depths are between one and three feet.

Wastewater treatment facilities constructed at Marrero and Harvey will have to be in accordance with the building requirements of the flood ordinance of Jefferson Parish in order to minimize possible future flood damage.

5.2.4 Ground Water

Existing Conditions. The New Orleans area has five aquifer formations: shallow aquifers (point bars and channel deposits); and the 200-foot, 400-foot, 700-foot and 1,200-foot sands. To one degree or another, all of these aquifers, with the exception of the 1,200-foot sands, are located within the planning area. The most important and predominant aquifer in this group is the 700-foot sand. However, none of these aquifers are used as a source of potable water because of their poor quality.

Analysis of Alternatives. Due to a combination of factors, including poor water quality and limited thickness, none of the ground water aquifers in the project area are presently used for drinking water supplies or are they planned to be used in the future. Construction activities related to Alternative N would not have a detrimental long-term impact on ground water resources.

It is anticipated, however, that project construction will require the use of trench pumps or well points for dewatering operations. Direct pumping of this

TABLE 5-3

FLOOD HAZARD ZONE DEFINITIONS

Zone	Description
A	Areas of 100-year flood also referred to as "base flood." This is the intermediate level of flooding that the insurance program is geared to protect against. No flood hazard factors are determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet. No flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet. No flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined. The hazard factors reflect the degree of flood risk in the area. The risk zones are used by insurance agents for the proper rating of new properties to be insured under the program.
A-99	Areas of 100-year flood to be protected by flood protection system under construction. Flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.
C	Areas of minimal flooding.
D	Areas of undetermined, but possible flooding hazards.

Source: U.S. Department of Housing and Urban Development, 1976.

ground water to catch basins, streams, wetlands or other drainage facilities, should not be permitted. Water should be diverted as far as possible from existing stream and wetland areas. When this ground water is discharged to drainage facilities, it should be the construction contractor's responsibility to make certain that sand and silt are removed by the use of salt hay, filter fabric, and/or the use of a fabricated stilling basin.

5.3 AIR QUALITY

Existing Conditions. Jefferson Parish is designated by EPA as a "Tier II" area. This designation presumed the Parish would not be able to demonstrate attainment of the ozone standard by December 31, 1982. In 1982, Jefferson Parish failed to meet the ozone standard on six of 365 days. The Louisiana Department of Natural Resources (DNR), however, feels that the non-attainment may have been due to a local source such as a transformer station or ozone transport from the industrial complex in St. Charles Parish (Von Bodungen, pers. comm.). The state climatologist is currently reevaluating the meteorological conditions during each period of violations. Jefferson Parish is in compliance for all other air quality standards.

Analysis of Alternatives. Short-term adverse impacts to air quality will result from construction activities related to Alternative N. Localized increases in the concentrations of carbon monoxide, oxides of nitrogen, oxides of sulfur, and unburned hydrocarbons may be caused by engine emissions from construction vehicles and construction-delayed traffic. However, these impacts are generally minor in nature, are limited to the period of construction, and affect only a localized area. Furthermore, vehicle exhaust emissions can be minimized by requiring the use of properly maintained construction equipment with efficient emission control systems. Construction-delayed traffic can be lessened by planning construction during portions of the day and week when non-peak traffic volumes are expected and by using multiple construction crews to reduce the total duration of traffic disruption in any given area.

Fugitive dust will be emitted from exposed soil during construction due to wind erosion, thereby increasing total suspended particulate concentrations. However, due to the high moisture content of the soils, which reduces the

possibility of particles becoming airborne, such emissions should not be significant. Based on the soil moisture content, as reflected by the region's Precipitation/Evaporation Index and other factors, a fugitive dust emission factor (tons/acre/month) for the planning area was developed. This factor multiplied by the amount of area disturbed by construction, will give the amount of fugitive dust produced by this alternative.

Alternative N contains approximately the same length of conveyance force main and will require about the same land area for treatment plants and pumping stations as Alternative H from the list of final alternatives in the Draft EIS for this project. Assuming a total construction period of two years, the total dust production for Alternative N will be approximately 175 tons for the first year and 160 tons for the second year. The total dust production for the first year represents approximately one percent of the total Parish particulate emissions and will have an insignificant impact on overall regional air quality.

Construction sites, particularly the treatment plant expansion sites, may, however, represent locally significant sources of dust. However, the amounts of dust generated can be substantially reduced from the figures cited above by the use of appropriate mitigating measures. These measures include the sprinkling of water on bare or disturbed soils during the construction period and the provision of mechanical sweeping equipment, hand brooms, and other equipment required to control dust on project streets.

Long-term air quality impacts, in the form of potential odors from treatment and conveyance facilities, are of more serious concern than dust production. Odors can be formed when bacteria act on the wastewater without sufficient dissolved oxygen being available or when anaerobic bacteria are part of the unit process. Odors from wastewater facilities can be attributed to pumping station wet wells, generation of hydrogen sulfide in force mains, septic wastewater reaching the plant, overloading of treatment units and sludge management operations.

As many of the facilities in this alternative (and in the other final alternatives addressed in the Draft EIS) are to be located in close proximity to residential and commercial establishments, public concern over odor generation

is likely to be present. The design of the proposed facilities should, therefore, incorporate adequate odor control facilities. These facilities, when properly operated and maintained, can minimize, if not eliminate, the potential for odor impacts on the surrounding community.

Pumping stations can be designed with automatic scum skimming systems to eliminate the accumulation of scum in wet wells and, therefore, minimize the potential for generation of odors. Carbon adsorption systems or their equivalent can also be used to ensure that odor-bearing vapors from the pumping station will be stripped of odors before being vented to the atmosphere. In force mains, hydrogen sulfide formation can be eliminated by injecting air into pumping station effluent lines, introduction of hydrogen peroxide into the lines or by use of a chlorine injection system.

Odor production can be reduced at a treatment plant by killing the bacteria or limiting their numbers by the use of prechlorination or ozonation. Another in-plant odor control technique consists of covering the tanks or units that produce odors. Collecting and treating odors can also be done at treatment plants as with pumping stations. It is anticipated that these and other measures will be evaluated during the project design stage.

5.4 SOUND QUALITY

Existing Conditions. Existing sources of significant noise levels in the planning area include: traffic on highways, localized construction activities and overflights by aircraft using area airports. Ambient noise level information for the planning area is generally lacking. However, during the preparation of the West Bank Expressway EIS (U.S. Department of Transportation, 1977) ambient noise levels were measured at 42 sites along the expressway route. Noise levels ranged from 59 to 75 dBA. The West Bank Expressway, which is in the process of being reconstructed, travels in an east-west direction through the more densely populated portion of the planning where most of the facilities related to this alternative are located.

An EIS prepared on the Bayou de Familles Development Corporation Flood Protection Levee for the U.S. Army Corps of Engineers indicates relatively low

ambient noise levels (10-30 dBA) in the less developed, southern portion of the West Bank. Noise levels along Louisiana Highway 45, a moderately traveled north-south thoroughfare, were estimated to be 60-80 dBA.

Analysis of Alternatives. Short-term impacts of noise are related to project construction activities. A large portion of the West Bank population will be exposed to construction noise impacts due to the building of the facilities required for Alternative N. Construction activities will affect sewer rights-of-way during the construction of conveyance force mains. All existing treatment plant sites will be affected as these facilities will either be abandoned and converted to pumping stations or, in the case of Bridge City, Marrero and Harvey, renovated to accomodate plant expansion. The three proposed plant expansion sites at Bridge City, Marrero and Harvey will also be affected as will the sites of new proposed pumping stations.

Adverse noise impacts related to force main construction are a function of the total length of sewer lines that would pass through or near residential and commercial areas. Noise levels produced by construction equipment will vary with the number and type of equipment in use, and the distance from areas which would be affected. Based on a typical mix of sewer construction equipment, the noise levels indicated in Table 5-4 can be expected during construction of any of the proposed force main sewers. The day-night noise levels presented in the table represent a combination of typical residential area noise levels and construction noise levels that can be expected in the front yards of houses facing construction (L_{dn} @ 50 feet), backyards of houses facing construction (L_{dn} @ 90 feet) and the point at which the construction noise levels would blend with the ambient noise levels (L_{dn} @ 570 feet).

Construction noise can be expected to exceed EPA recommended levels shown in Table 5-5 for protection of health and welfare within a distance of approximately one and one-half blocks of the equipment. These projected adverse impacts are, however, short-term and any one house or business could be expected to be impacted for two to three days. Noise control techniques such as limiting construction to normal work-day hours and employing mufflers on machinery will lessen the severity of noise impacts.

TABLE 5-5

SUMMARY OF NOISE LEVELS REQUISITE TO
PROTECT PUBLIC HEALTH AND WELFARE
WITH AN ADEQUATE MARGIN OF SAFETY

Effect	Noise Level	Areas
Hearing Loss	$L_{eq}(24) < 70$ dBA	All areas
Outdoor activity interference and annoyance	$L_{dn} < 55$ dBA	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use
	$L_{eq}(24) < 55$ dBA	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	$L_{dn} < 45$ dBA	Indoor residential areas
	$L_{eq}(24) < 45$ dBA	Other indoor areas with human activities such as schools, etc.

Note: L_{eq} = equivalent sound level which describes the steady noise level over a 24-hour period that is equivalent in terms of total sound energy to time varying noise levels during the same period.

L_{dn} = day-night sound level which is defined as the equivalent noise level during a 24-hour period with a 10 decible (dBA) penalty applied to the nighttime L_{eq} to account for the increased annoyance from noise during the hours between 10:00 p.m. to 7:00 a.m.

Source: U.S. Environmental Protection Agency, 1974.

TABLE 5-4

CONSTRUCTION NOISE LEVELS

Source	L_{eq} @ 50 ft. (dBA)	L_{dn} for Residential Areas (dBA) @ 50 ft.	@ 90 ft.	@ 570 ft.
Excavation	84	80	75	55
Construction	84	81	76	55
Restoration	89	87	82	56

Notes: L_{eq} = equivalent sound level which describes the steady noise level over a 24-hour period that is equivalent in terms of total sound energy to time varying noise levels during the same period.

L_{dn} = day-night sound level which is defined as the equivalent noise level during a 24-hour period with a 10 decible (dBA) penalty applied to the nighttime L_{eq} to account for the increased annoyance from noise during the hours between 10:00 p.m. and 7:00 a.m.

Source: Milwaukee Metropolitan Sewerage District, 1980.

Many of the existing treatment plant sites, proposed pumping station sites, and the proposed plant expansion sites are located near (or in some cases immediately adjacent to) residential areas. Those areas within approximately 600 feet of these sites can expect to experience adverse noise impacts during construction activities at the sites. The adverse impacts can be expected from time to time for the duration of the construction activities. Typically, conversion of an existing treatment plant to a pumping station or construction of a new pumping station will take approximately 6 to 12 months, while construction at each of the three plant expansion sites will last approximately 24 months. Noise control techniques similar to those described for force main construction can be used to partially mitigate noise impacts on residences.

Long-term noise impacts associated with the operation of pumping and treatment facilities are generally a function of the type and location of equipment units within the facility boundaries. Noise management at wastewater treatment facilities must take into account nuisance problems to adjacent properties as well as occupational health problems for plant personnel. By examining the noise created by treatment equipment and the ambient noise levels, the increase in ambient noise levels for a receptor at any distance can be calcualted. Mitigating measures can then be designed should a particular activity exceed levels necessary for protection of health and welfare. However, such an analysis requires that accurate estimates of noise emissions from each source be obtained from equipment manufacturers and technical literature.

During the present stage of this project (facilities planning), the treatment units and equipment to be utilized are described in general terms. Therefore, a detailed, quantified analysis of noise impacts is not possible at this time. However, during the next stage of the project (design), specific equipment will be recommended by the design engineer and noise emission levels can be more accurately defined. It is recommended that during the design phase a review of the project be made with the purpose of obtaining the location and installation details of all major sources of noise, the location of all noise sensitive areas, and the possible paths by which noise will propagate to each noise sensitive area. Predicted noise levels at each sensitive location can then be determined and appropriate abatement measures identified.

In general, proper acoustical design can ensure that noise generated by the operation of treatment plants and pumping stations is within acceptable levels. Examples include special mufflers for combustion engines and air compressors, intake silencers, engine enclosures, restricting the operation of noise-producing equipment to certain hours of the day, and improving the vibration characteristics of equipment. The use of sound absorptive material on the interior walls of pumping stations or treatment plant equipment buildings can also be effective in reducing noise levels. Proper site planning including the construction of solid barriers, the planting of trees and other vegetation, relocating ventilation intakes away from residences, and the modification of the material and shape of building exteriors are other measures to modify the propagation of sound. It is anticipated that these and other measures will be evaluated during the project design stage.

5.5 BIOLOGICAL RESOURCES

5.5.1 Aquatic Communities

Existing Conditions. The existing aquatic biological communities in the region of the proposed Jefferson Parish wastewater facilities were discussed in Section 6.2.5, Biological Resources, of the Draft EIS. The existing treatment facilities in the planning area discharge effluent to the canal/bayou system which drains to the Barataria Basin. These discharges combine to increase nutrient loadings to the Barataria Bay and the marshes existing along the canals that drain to the bay. As development of the West Bank continues, wastewater discharges to these canals and bayous will continue to increase. Because of the limitations of the existing treatment plants, increased stress will be placed on the assimilative capacity of the aquatic communities in the basin. This may lead to the development of nuisance species capable of tolerating higher wastewater flows and nutrient loadings, thereby displacing the existing, highly productive food chains and commercial fisheries within the Barataria Basin and along the Gulf of Mexico.

Analysis of Alternatives. Alternative N will eliminate all of the present wastewater treatment plant discharges and transfer all or most of the flow to the Mississippi River. For the river option, all of the flows will be

transferred to the Mississippi River. For the river/canal option, approximately 35% of the area's future wastewater flow would continue to be discharged to the Barataria Basin after receiving adequate treatment as determined by the State. Therefore, both options of this alternative should have a beneficial impact on aquatic communities in the sensitive Barataria Basin by eliminating or improving the wastewater discharges. Resultant discharges to the less sensitive Mississippi River are not expected to adversely affect aquatic communities.

5.5.2 Terrestrial Communities and Wetlands

Existing Conditions. The regional terrestrial vegetation conditions for the area of concern were discussed in the Draft EIS. Portions of the Bridge City and Marrero sites currently support light, second growth scrub timber; the remaining portions of the site are developed into a storage yard and parking lot, respectively. The Marrero site is currently vacant, dry land containing broken pavement, shell fragments and weeds.

Analysis of Alternatives. In the Draft EIS for this project, the final project alternatives were evaluated in terms of their impacts on terrestrial ecosystems based on the types and values of habitat traversed. For that analysis, data were obtained from field observations, aerial photographs, maps and other literature sources.

For the final alternatives (except for No Action), the short-term disruption of terrestrial ecosystems due to conveyance system construction was essentially the same, ranging from 76.3 acres to 85.5 acres. Alternative N contains approximately the same length of conveyance force main and will require about the same land area for treatment plants and pumping stations as Alternative H. Therefore, the types and amounts of short-term disruption would be expected to be approximately the same. These impacts would include the disruption of approximately 17 acres of woodland, 2.5 acres of field, 4 acres of right-of-way, 50 acres of road shoulder and 6.5 acres of areas in which original vegetation has been removed and, presently, are in various stages of vegetative succession.

Long-term impacts to terrestrial communities will result from vegetation removal in areas of treatment plant and pumping station construction and in areas where permanent easements are required for conveyance system maintenance.

The proposed Bridge City expansion site alternative to the west of the existing plant consists of a storage yard which is shell paved and has an area of about four acres. No impacts to terrestrial ecosystems would result from construction at this site. The other potential Bridge City expansion site located north of the existing plant is also about four acres in size and is covered with light, second growth scrub timber (Beavers, 1983). This vegetation would be removed for construction of the facility at this site.

The expansion site proposed for Marrero is located south of the existing plant and is about seven acres in area. Part of the site is used as a parking lot for the Parish Public Utilities Department. However, the remainder of the site is lightly wooded with second growth scrub timber (Beavers, 1983). Vegetation at the site would be removed to accommodate the facility construction.

At Harvey, the proposed expansion site is located west and south of the existing treatment facility and is approximately 7.5 acres in area. The site is an open plot, covered on the north by shell and broken pavement and on the south by weeds (Beavers, 1983). No adverse impacts to terrestrial communities will occur due to construction at this site.

Of the 28 pumping stations proposed as part of Alternative N, 10 would be located at the sites of existing treatment plants which would be converted. As these areas are already disturbed, no adverse impacts to terrestrial communities would occur. Of the other 18 pumping stations, 14 are less than 5,000 gallons per minute (gpm) in capacity and each could be constructed on approximately a one-quarter acre site. The remaining four stations would each require about a one-half acre site. Therefore, approximately 5.5 acres could be impacted from pumping station construction. Specific sites for these stations have not been selected. It is recommended that further investigation of potential impacts to terrestrial communities be done during the design phase of the project in order to locate the stations to minimize the impacts.

Impacts to terrestrial communities resulting from permanent easements for conveyance system maintenance are expected to be minor. For the most part, conveyance lines will be constructed along road shoulders or in existing rights-of-way, thereby minimizing habitat removal or disruption.

Because the three proposed expansion sites are dry land, no adverse impacts to wetland areas are anticipated due to construction of these facilities. During the design phase of the project, steps can also be taken to ensure that pumping station locations and conveyance force main routings avoid wetland areas.

5.5.3 Rare, Threatened or Endangered Species

Existing Conditions. The rare, threatened or endangered plant and animal species which are known to, or which could occur, in the project region were discussed in the Draft EIS on page 6-45.

Analysis of Alternatives. During the preparation of the Draft EIS for this project, an analysis of the effects of project alternatives on rare, threatened or endangered species was performed. This analysis included an on-site inspection of the potential project construction areas, coordination with the Louisiana Department of Wildlife and Fisheries (Watson, pers. comm.) and a review of available literature. The proposed wastewater conveyance and treatment facilities for Alternative N are similar in location, size and area served to those proposed in the alternatives evaluated in the Draft EIS. No adverse effects to endangered or threatened species will occur by implementing Alternative N.

The Draft EIS analysis indicated that the closest eagle nesting area is over 11 miles from any potential areas of facilities construction, facilities operation, or effluent discharge. The hunting range of the bald eagle could include the east shore of Lake Cataouatche. However, this area is approximately three miles from any potential areas of construction, operation or discharge. The habitat of the brown pelican and the peregrine falcon, occurring in the southern end of Barataria Bay and along the Coastal barrier islands, are even more remote from the project area. Because of the distance, no impacts to

these species will result. The Department of the Interior concurred with EPA's determination by letter dated May 27, 1982.

Because of the currently disturbed, or historically disturbed nature of all three proposed expansion sites, it is extremely unlikely that these would support any rare plant species or unusual or unique vegetation communities.

5.6 CULTURAL RESOURCES

Existing Conditions. The existing cultural resources conditions for the planning area, including previous project alternatives, are presented in the Draft EIS on page 6-47. An additional archaeological survey and assessment was conducted for the three expansion sites comprising Alternative N in 1983 (Beavers, 1983). The complete report is on file at the office of the Environmental Impact Officer for Jefferson Parish in Metairie.

The Bridge City site contains no sites on the National Register of Historic Places (NRHP) or sites eligible for inclusion on the NRHP. A walk-over survey and boundary traverse failed to reveal the presence of any cultural resources of note including architectural or historical structures (pre-1940). No prehistoric or historic archaeological sites are known to be present at this location. However, various historic maps of the area indicate that this site is close to historic Colonial plantation activities. An evaluation of available historic information indicates that the Bridge City site was situated in either cypress backswamp or sugarcane fields during the Colonial and later historic periods and has an extremely low probability of containing any cultural resources of note.

The Marrero site contains no sites on the NRHP or sites eligible for inclusion on the NRHP. A walk-over survey and boundary traverse of the site failed to reveal the presence of any cultural, architectural or historic (pre-1940) resources. No prehistoric or historic archaeological sites are known to be present at this location.

The Harvey expansion site contains no sites on the NRHP or sites which are eligible for inclusion on the NRHP. A walk-over survey and boundary traverse of the site failed to reveal the presence of any cultural, architectural or historic (pre-1940) resources or structures of note. No prehistoric or historic archaeological sites are known to be located at this location.

Analysis of Alternatives. Based on the archeaological survey and assessment conducted for the proposed expansion sites, the State Historic Preservation Office (SHPO) has determined that no significant cultural resources are likely to be impacted by the proposed alternative (DeBlieux, pers. comm.). In the event that buried cultural resources are discovered at any of these sites, the SHPO should be notified immediately. See Appendix B.

5.7 SOCIOECONOMICS

5.7.1 Population

Existing Conditions. The 1980 Census data indicate the Jefferson Parish population to be 454,592, of which approximately 60% is on the East Bank, with the remaining 40% on the West Bank. Population densities vary, with those on the West Bank being considerably less than for either the East Bank or the entire Parish, due to the extent of the relatively unpopulated wetlands which comprise the southern half of the Parish.

Population projections indicate that between 1980 and 2010, the population of Jefferson Parish will increase by 40% and the planning area will increase by 92% between 1980 and 2005. Detailed projections for population are presented in Table 6-15 of the Draft EIS.

Analysis of Alternatives. Effects from implementation of Alternative N would be similar to those evaluated in the Draft EIS. Alternative N would permit population growth on the West Bank in areas where land is available for development. However, the population growth would not be a direct result of Alternative N. The overall population growth on the West Bank will be a function of economic and social urbanization, and growth patterns established by Jefferson Parish policies.

5.7.2 Recreation

Existing Conditions. The largest recreational area on the West Bank is the Jean LaFitte National Historical Park. The park is primarily wetlands and consists mostly of nature trails and canoe trails. The Bayou Segnette State Park is currently proposed for the general area. In addition, there are many smaller playgrounds in the project area. However, the proposed sites for expansion at Bridge City, Marrero and Harvey do not contain recreational facilities. The Harvey Playground is located adjacent to the existing Harvey wastewater treatment plant.

Analysis of Alternatives. Implementation of Alternative N would not directly affect recreation opportunities on the West Bank. However, due to population growth projected on the West Bank, park and recreation facilities will be indirectly affected by more intensive use.

If discharge to the Harvey Canal is implemented, there is the potential for direct effects upon the Jean LaFitte National Historical Park. Since this discharge will have to meet the requirements set by the EPA and the State, the impacts on water quality and biological resources in the area should be minimal. If the effluent is discharged to the Mississippi River, improvement in water quality should result in beneficial impacts to the Jean LaFitte National Historical Park.

5.7.3 Employment and Income Characteristics

Existing Conditions. Jefferson Parish is an integral part of the total economic unit comprised by the Greater New Orleans area, and economic fluctuations are reflected throughout the area. The greatest economic contributors are generally considered to be the Port of New Orleans and tourism. Recent economic data indicate that tourism and government are the largest contributors of employment and income. Port-related activities are ranked fifth in importance.

Statistics on per capita personal income for the New Orleans area indicate Jefferson Parish to be the highest of all the nearby parishes. Detailed information on per capita personal income were described in Table 6-18 of the Draft EIS.

Analysis of Alternatives. If discharge to the Harvey Canal is utilized, there may be effects upon the fishing industry in the southern portion of the Parish. However, since this discharge will have to meet EPA and State requirements, the effects are not expected to be significant. Historically, the commercial fishing industry in the State of Louisiana has counted for up to one-fourth of the U.S. output. Thus, continuation of this major source of economic activity of the region is a major concern of the citizens of the West Bank. During preparation of the Draft EIS, members of the Citizens Advisory Committee and the public commented upon the importance of protecting the commercial fishing industry in the southern portion of Jefferson Parish.

Construction and operation of the three plants would create positive economic effects, including increased employment, wage and salary income and local purchases of material, equipment and supplies. The indirect effects of Alternative N will involve general overall growth of the economic base of the West Bank. Since the West Bank area has potential for expansion of both commercial and residential areas, development will tend to create an increase in property values throughout the West Bank.

5.7.4 Economics

Existing Conditions. The Clean Water Act, as amended, reduces the level of EPA's grant participation for wastewater treatment facilities improvements effective October 1, 1984. Because of the reduction of Federal funds available and the manner in which the state priority system distributes the grant funds, Jefferson Parish will not likely receive any Federal assistance. Based on the 1983 State priority list, the Parish is in-line for post-1987 funding; however, approximately 25 projects may receive post-1987 fundings prior to Jefferson Parish's wastewater treatment facilities.

Analysis of Alternatives. The total cost to expand the proposed facilities and the conveyance system ranges from $64.7 million to $66.2 million (depending on discharge location) with an annual operations and maintenance cost of $4 million. As Parish-generated funds will be utilized, the cost will be borne by the user. The total user fee is estimated to be $9.60 per household per month. This fee may cause economic hardship to some households.

5.7.5 Education

Existing Conditions. Educational opportunities on the West Bank are provided primarily by the Jefferson Parish Public School System, which maintains 61 schools on the West Bank. Enrollment in the Parish public schools has dropped at a rate of about 800 to 1,200 students per year from 1976 to 1980. Current plans for the District involve renovation of existing schools and the construction of 15 new schools.

Analysis of Alternatives. Implementation of Alternative N is not anticipated to have a direct effect on the educational trends of the West Bank. However, since the alternative would provide the basis for population growth on the West Bank, there could be an indirect effect upon the requirements for educational facilities.

5.7.6 Public Services and Utilities

Existing Conditions. Telephone and electricity services to the West Bank are provided by private companies. Telephone service is provided by the South Central Bell Telephone Company. Electricity is provided by Louisiana Power and Light Company, a member of the Middle South Utilities, Inc. Natural gas is provided by the Louisiana Gas Service Company, which serves both residential and commercial customers on the West Bank.

The Jefferson Parish Waterworks maintains and operates the water system for the unincorporated areas of the West Bank. The system has a 44 MGD capacity provided by two water purification plants which utilize the Mississippi River as their source of water. The plants are currently operating at 48% of their capacity.

The Jefferson Parish Drainage Department builds, maintains, and operates pumping stations and drainage canals for the West Bank. The Department maintains storm drain lines in a subsurface system to prevent flooding of streets. There are currently 24 pumping stations on the West Bank which pump water from the drainage system into various lakes and bayous within the Parish.

Solid waste pick-up and disposal for the West Bank is contracted to the Jefferson Disposal Company, Inc., which operates the Greater New Orleans sanitary landfill on the West Bank. Jefferson Disposal collects trash and solid waste from all of the planning area.

Analysis of Alternatives. Implementation of Alternative N would not directly increase the rate of consumption or need for facilities in any of the public services or utilities. These requirements will be affected by the overall growth trends of the West Bank area, rather than development of the wastewater facilities. However, there will be an increased demand for electrical energy to service the pump stations and the treatment facilities. The electrical requirements for pumping have been delineated in Section 3.2.8.

Telephone, natural gas and water usage will not be directly affected by implementation of Alternative N. The drainage and solid waste requirements of the residences and businesses on the West Bank would not be directly affected by this alternative.

The indirect effects of implementation of Alternative N will be related to population growth on the West Bank. Indirectly, Alternative N will result in a higher rate of growth which would increase the rate at which utilities would be required.

5.7.7 Public Health and Safety

Existing Conditions. Police protection for the unincorporated area of the West Bank is provided by the Jefferson Parish Sheriff's Office and the Louisiana State Police. Both provide assistance to other law enforcement agencies as required.

Fire protection for the West Bank is provided by 17 volunteer fire departments, with about 1,400 personnel operating 25 fire stations.

Health care for West Bank residents is provided by numerous health care professionals in private practice, plus two hospitals, three nursing homes, a mental health clinic, family planning clinic and a general medical clinic.

Analysis of Alternatives. Implementation of Alternative N would not have any direct effects on the requirements for police and fire protection and health services on the West Bank. Indirectly, growth on the West Bank would require an increase in the level of these services.

Implementation of Alternative N should prevent back-up of sewage into residences during periods of heavy rainstorms. This should alleviate any potential public health dangers which exist under current conditions.

5.7.8 Transportation

Existing Conditions. The three primary east-west arteries on the West Bank are Fourth Street (Louisiana Highway 18), the West Bank Expressway (Business Route U.S. Highway 90), and Lapalco Boulevard which provides access to the residential areas to the south.

Improvements to the West Bank traffic system involve new construction to the West Bank Expressway and adjacent roadways. These improvements will meet the needs of both current and projected traffic levels on the West Bank. The Expressway improvement project is currently under construction, with completion anticipated in 1984.

In addition, the Louisiana Department of Transportation and Development is currently conducting an analysis to site and construct another bridge across the Mississippi River to connect the East and West Bank of Jefferson Parish.

Analysis of Alternatives. Implementation of Alternative N would create traffic effects upon the local street network during the construction period. Traffic would temporarily be affected in areas where force main construction

occurs, especially at major intersections and heavily used thoroughfares. These disruptions would be temporary and would cease upon completion of construction.

5.7.9 Energy and Resources

Existing Conditions. The direct energy consumption of the existing wastewater treatment plants in the planning area has been estimated by the facilities plan engineer. This energy usage includes 3.7×10^6 KWH/year of electricity, 22,000 pounds/year of polymer, and 754 tons/year of chlorine.

Analysis of Alternatives. The typical energy forms consumed for wastewater treatment are electricity, fuel oil, diesel fuel, natural gas, coal, and sometimes, propane. Direct energy consumption refers to on-site energy use while indirect consumption refers to energy consumed in the production of materials used at the plant, during construction, in producing construction materials and for transportation services.

The major materials required for the construction of this alternative include concrete, plywood forms, reinforcing steel, structural steel and steel pipe. Estimates have been made of the quantity of energy embodied in construction materials at secondary treatment plants of various sizes. In this alternative, a total of 15.7 mgd of additional plant capacity will be constructed at the three sites. The energy consumed in the production of materials for this construction would be approximately 2.0×10^9 BTU/mgd (Owen, 1982).

Energy such as electricity, gasoline and diesel oil will be consumed during facilities construction. As a general estimate, treatment plant construction energy is typically about 18,000 Btu per construction dollar, referenced to 1980 (Owen, 1982). Energy for construction can range from 20 to 50% of total construction costs (Owen, 1982). The capital cost estimate for this alternative is $66,205,000 for the river discharge option and $64,648,000 for the river/canal discharge option.

The relative quantities of energy and resources required for facilities construction and for the fabrication of construction materials are reflected in

these capital cost estimates developed by the facilities plan engineer. Capital cost estimates can, therefore, be used to make a comparison of this alternative with other plans in terms of indirect energy consumption for construction.

Direct annual energy requirements for operation of the three treatment plants, conveyance system pumping, and effluent pumping have been estimated by the facilities plan engineer to be 15,100,000 KWH per year. Indirect energy during operation is required for the production of consumable materials used in the treatment process, for the transportation of these materials to the plants, and for the export of treatment products such as sludge.

The principal consumable material for this alternative will be polymer with an annual usage of 43,000 lbs per year according to the facilities plan engineer. Based on limited data, the total specific energy for polymer production has been established to be 17,000 Btu per lb (Owen, 1982). However, energy costs represent only about 5% of the total cost of polymer production (Owen, 1982). It is anticipated that materials will be delivered to the plants by truck. In addition, dewatered sludge will be hauled by truck to the previously designated landfill for disposal. Truck transportation energy consumption is estimated to be approximately 2,800 Btu per ton-mile (Owen, 1982).

Sludge gas energy recovery is planned for the three proposed treatment plants. Gas will be collected from the sludge digesters and will be utilized as a fuel source. Gas produced by anaerobic digestion is about two-thirds methane and one-third carbon dioxide with relatively small amounts of water, hydrogen sulfide, ammonia and other gases also present. The heat value of the gas is typically about 600 Btu per cubic foot (Wesmer, et al., 1978). The facilities plan engineer estimates that, under average conditions, a properly operated gas utilization system should provide up to 70% of the total facility energy need.

5.7.10 Land Use

Existing Conditions. Land use considerations are a major concern in the siting of wastewater treatment facilities. Although regional considerations of

land use are important, the major effects from construction and operation of a wastewater treatment facility will involve site-specific concerns. Thus this analysis is primarily directed toward site-specific land use concerns.

The Bridge City Expansion Site is in an area designed for commercial use. The expansion site lies north and west of the existing Bridge City Wastewater Treatment Plant. The area south of the site is designated for industrial use and the areas to the northeast and east are designated for commercial use. There is public and semi-public property to the east, and some low density residential property to the northwest off Bridge City Avenue (Regional Planning Commission, 1978).

The proposed Bridge City Expansion Site is open, dry land. This site is adjacent on the east side to the right-of-way for the Huey P. Long Bridge which lies between U.S. Highway 90 and the existing site. Property owned and utilized by the State of Louisiana and the Parish of Jefferson lies immediately to the south. Property to the north and west of the site is vacant, dry land.

The Marrero Expansion Site is located adjacent to and south of the existing Marrero Wastewater Treatment Plant. Land use for that area is primarily designated for low density residential use with property at the Ames Boulevard-Lapalco Boulevard junction designated for commercial use. Property to the north and west is designated for medium density and low density residential uses, respectively (Regional Planning Commission, 1978). Lapalco Boulevard is the southern boundary of the property. Just south of Lapalco Boulevard, the area is designated for public and semi-public use to the west and commercial use to the east.

The western portion of the proposed Marrero expansion site is currently vacant, dry land. The eastern portion is currently used as a parking lot by the Jefferson Parish Public Utilities Department. The property east of the Millaudon Canal is used by commercial interests. The existing Marrero Wastewater Treatment Plant forms the northern boundary of the proposed site. A residential area is located to the extreme northwest boundary.

The Harvey Expansion Site is located in an area designated for low density residential use and is surrounded on all four sides by property designated for low density and residential development. The expansion site lies adjacent to and west of the existing Harvey Wastewater Treatment Plant (Regional Planning Commission, 1978).

The proposed Harvey Expansion Site is vacant, dry land. It is separated from the existing Harvey Wastewater Treatment Plant to the east by the Gardere Canal. It is surrounded on all four sides by property in commercial or industrial use. The only residential area lies adjacent to the northeastern corner of the existing treatment plant. The Harvey Playground lies south of the existing plant.

Analysis of Alternatives. The overall effect from implementation of Alternative N would be to preclude the use of the particular areas at each site from other uses. Where nearby existing uses are residential or commercial, addition to the sewage treatment facility would, most likely, be perceived as an incompatible use. However, such incompatibility would be mitigated by appropriate plant design to minimize odor, visibility, potential hazards and the likelihood of trespassers. Location of a treatment plant in an area of existing industrial use would be the most likely acceptable site.

The existing Bridge City treatment facility is located adjacent to U.S. Highway 90, the Jefferson Parish Sheriff's Department and the Louisiana Department of Transportation and Development facilities. The areas north and west of the existing facility are vacant. Future use of the vacant area north and east is commercial and to the south and west is industrial. Thus, although residential areas are nearby, the closest uses existing and proposed should be compatible with the proposed construction.

The existing uses near the Marrero site include commercial and residential. The proposed expansion site is a parking lot. Immediately west of the existing site are residential units. The area adjacent to the proposed expansion site is currently vacant. The existing residential areas at the Marrero site could be adversely affected from the expansion of the wastewater treatment facilities. Potential impacts due to odor, noise and other potential hazards would

exist for the residential units nearby. However, such adverse impacts could be mitigated by appropriate plant design to minimize odors, provide the maximum possible distance between odor and noise sources and sensitive receptors, and by fencing the entire perimenter.

The existing uses near the Harvey plant include commercial/industrial to the east, the Harvey Playground to the south, industrial uses to the west and a strip of vacant land and residential units to the north. The proposed expansion site is vacant. Since the entire area near the expansion site is industrial or commercial use, expansion of the site should not create adverse impacts to the area.

Aesthetic considerations related to the proposed expansion would involve visibility and odor concerns. These adverse impacts could be mitigated through appropriate facility location, design and landscaping procedures.

Community attitudes related to expansion of these sites will most likely be related to odor and visibility concerns. To the extent possible, these potential adverse affects would be mitigated through appropriate facility design and community involvement in the planning and siting process. The use of the Citizens Advisory Committee and other public meetings will provide a method to involve the community in the planning and siting considerations at each specific site.

6.0 COORDINATION

6.1 ACTIONS TAKEN FOR DRAFT EIS

A special "Fifth Ward" Citizens Advisory Committee (CAC) was appointed by the Jefferson Parish Council in early April, 1982, prior to the Draft EIS Public Hearing in order to evaluate and recommend an alternate site in the Bridge City-Waggaman Corridor for a new treatment plant. The four persons appointed to that CAC met with Parish officials three times (April 6, 8 and 21) prior to the Public Hearing. That Committee recommended the Switchyard Site on U.S. Highway 90 as an alternative site (Alternative M). An elevation of that site is shown in Appendix C and a comparison is given in Table 1-3.

A Public Hearing was held on the Draft EIS on April 22, 1982. A display ad (4.5 x 6 inches) announcing the hearing appeared in the West Bank Guide on April 14, 1982. A legal notice also appeared in the Times Picayune/States-Item 45 days prior to the hearing. Comments on the Draft EIS received at the public hearing and during the 45-day review period are addressed in Section 6.2 below. The actual comment letters may be reviewed at one of the following information depositories: Marrero Branch Public Library, Lafitte Branch Public Library, Terrytown Branch Public Library or Westwego Branch Public Library.

6.2 COMMENTS AND RESPONSES TO DRAFT EIS

6.2.1 Comments Received During the Comment Period

6.2.1.1 Federal Agencies.

1. U.S. Department of Agriculture, Soil Conservation Service
   Harry Rucker, State Conservationist

Comment: Construction plans should include provisions for controlling erosion, revegetation of disturbed areas and management of water.

Response: Constructions plans will include provisions for controlling erosion, revegetating disturbed areas, and proper management of water.

2. U.S. Department of Housing and Urban Development
Victor J. Hancock, Environmental Clearance Officer

Comment: HUD does not oppose the project. Alternative selected should be the one that does not involve the loss of or damage to mature woodlands, wetlands and/or prime agricultural lands.

Response: Comment noted.

3. U.S. Department of Health and Human Services, Center for Disease Control
Frank S. Lisella, Ph.D., Chief Environmental Affairs Group

Comment: Concern over flood protection of the levee system, including the existing leeves and the proposed West Bank Hurricane Protection Levee.

Response: Areas that fall within the 100-year flood area can be developed as long as special flood-proofing of improvements is in accordance with the flood ordinance adopted by Jefferson Parish. Where flood plains cannot be avoided, all practicable measures to avoid harm must be used. The scope of this study did not encompass engineering and structural analysis of the various flood protection structures, nor the justification of the proposed West Bank Hurricane Protection Levee, which is the subject of a separate environmental impact statement in preparation.

Comment: Capability of the local health authorities to control vector populations capable of causing vector-borne diseases.

Response: The possibility of any vector-borne disease problems or nuisance problems encountered as a result of wastewater treatment facilities construction is unlikely. However, a detailed program to mitigate this potential hazard is a required element of the construction specifications. A major mitigating technique will be a highly efficient drainage system design.

Comment: Are local fire protection services capable of preventing and controlling fire hazards to minimize potential injury and loss of life.

Response: Pages 6-61 and 6-62 of the Draft EIS address fire protection services on the West Bank of the Parish. Fire protection is provided by 17 volunteer fire departments, with about 1,400 personnel operating 25 fire stations. The proposed project would not directly affect the fire hazards to persons or property on the West Bank of the Parish.

Comment: Explain if local zoning, building permits, public health codes and enforcement procedures for septic tank and drain field installation cannot prevent construction in areas unsuitable for septic tanks, and require alternative treatment or storage methods.

Response: Jefferson Parish Ordinance No. 13127 (Drainage and Sewerage Disposal Law) regulates the use of septic tanks in unincorporated Jefferson Parish. That ordinance also requires that once sewerage lines are available within 300 feet, the service must be utilized.

4. U.S. Department of Interior, Office of Environmental Project Review
Raymond P. Churan, Regional Environmental Officer

Comment: The proposed treatment alternatives should enhance water quality in the Barataria Basin and the Jean LaFitte National Historical Park. Alternatives which would discharge effluent into the Mississippi River are preferable.

Response: The 12 (preliminary-final) alternatives were selected on the basis of land availability, surrounding land use, potential land use of the actual site, and other environmental and engineering considerations. The effluent of these various alternatives discharged into either the Mississippi River or the Barataria Basin. To require all alternatives to discharge into the Mississippi River would require an inordinate additional amount of force main interceptors and could pose adverse impacts such as noise generation, traffic disruption, drainage and vegetation disruption.

Comment: Include a map showing relationship between the project sites and the Jean LaFitte National Historical Park and show neighborhood and district parks.

Response: The Jean LaFitte National Historial Park is located south of the primary populated area of the Parish. A general map is included at the end of this section. The proposed treatment facilities would not directly affect the Jean Lafitte National Historical Park nor any neighborhood or district parks. Page 6-52 of the Draft EIS discusses impacts to recreation.

Comment: Include the State Historic Preservation Officer's comments.

Response: Comments from the State Historic Preservation Office are included in Appendix B.

Comment: Impact of the treatment plant on nearby oil and gas operations.

Response: Collection/transmission lines for the proposed sewerage treatment plants would ideally be laid to be compatible with any oil and/or gas transmission lines. However, Jefferson Parish Ordinance No. 9101 (Canals and Pipelines; Oil and Gas Operations) mandates that "when any public project for the Parish of Jefferson is initiated which requires the relocation, raising or lowering of a segment of a pipeline which has been constructed within the confines of the Parish of Jefferson, the said relocation or change shall be at the expense of the owner of the pipeline."

5. Department of the Army, New Orleans District Corps of Engineers
D.J. Clement, Chief, Project Operations Branch, Operations Division

Comment: Confusion on significance of the numbers used on Table 5-7, page 5-25.

Response: Table 5-7 on page 5-25 presents the economic ranking of the final alternatives which were evaluated in the Draft EIS. Each alternative was assigned a letter and briefly described on the table. Then, each was ranked according to three separate criteria: Equivalent Uniform Annual Cost (EUAC), Cost (to build), and Operation and Maintenance Cost (O&M). These rankings are shown on the table. Further discussion of information presented on Table 5-7 is contained in Description of Final Alternatives on page 5-24, and Evaluation of Final Alternatives, Economic Analysis, on page 5-26 of the Draft EIS.

Comment: Discrepancy between statement on page 5-24 and the Corps of Engineers' response to a request for wetland determination for the Kelvin Tract--the Corps letter indicates all quarters of this tract are wetland, according to the EPA.

Response: Concur. EPA made the wetland determination for the Kelvin Tract.

Comment: Legality of the landfills at the Timberline and Kelvin tracts (page 5-27).

Response: The Timberline site was abandoned as a landfill several years ago. The site is currently used for a pipe storage facility. The Kelvin site is an active landfill which is permitted by the State of Louisiana (Solid Waste Permit No. P-0006). Neither of those two areas have ever received known industrial or hazardous wastes. The Kelvin Tract is routinely monitored for objectionable or hazardous contaminants.

Comment: The sitings shown for the Jean LaFitte Park on pages 6-3 and 6-25 are incorrect. The Park core area should be 8,600 acres not 8,000 acres (see page 6-46).

Response: Concur. A correct map is shown at end of this section.

Comment: Differentiate proposed from existing levees on page 6-14; correct location of the Marrero oxidation pond is shown on page 6-14, but page 5-6 shows wrong location.

Response: The levees as shown on page 6-14 currently exist. The Marrero oxidation pond is incorrectly shown on page 5-6. The correct location is west of the broken line.

Comment: Since the EIS referred to in the first sentence of the third paragraph on page 6-32 did not develop beyond the Draft, it should be noted as a Draft.

Response: Concur.

Comment: The inference of Corps of Engineers authority noted on page 6-67, paragraph 6.2.9 is too broad--authority is limited to that conveyed under Sections 10, 103 and 404 Regulation Permit programs.

Response: Comment noted.

Comment: Paragraph 6.3.2, page 6-77 should indicate whether users of septic tanks would be required to abandon their use and make connections to the wastewater treatment system.

Response: Jefferson Parish Ordinance No. 13127 requires that once sewerage lines are available within 300 feet, the service must be utilized.

Comment: The "U" rating on page 6-73 and the impact designation "U" identified in the footnotes on Table 6-22, page 6-74 create an ambiguity.

Response: Since EPA made the wetland determination for the Kelvin Tract, the "U" designation is incorrect; however, the "U" for the Churchill Farms site is appropriate since a wetland determination has not been made.

Comment: The omission of Alternative L from Table 6-23 is not understood.

Response: The "L" or "No Action" alternative was not included in Table 6-23 because it is not a feasible alternative. However, due to existing conditions, the No Action alternative would create the greatest number and magnitude of adverse environmental effects when compared to Alternatives A through K. For Table 6-23, the No Action alternative would be ranked 4.

Comment: The DEIS by VTN should be identified as a Corps of Engineers document on page 10-6.

Response: Concur.

Comment: The abbreviation for the Corps of Engineers is CE not COE as shown on page 11-1.

Response: Comment noted.

6. U.S. Department of Transportation, Federal Highway Administration
J.N. McDonald, Division Administrator

Comment: No comment.

Response: Acknowledged.

7. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Survey
R.T. Miki, Director of Regulatory Policy

Comment: The National Ocean Survey (NOS) should be notified if any planned activities would disturb or destroy any geodetic control survey monuments.

Response: In the unlikely event that a geodetic control survey measurement is located in a planned area of construction activity, the NOS will be notified not less than 90 days prior to disturbance.

Comment: NOS recommends that funding for the proposed project include the cost for relocation of any monuments, if required.

Response: Jefferson Parish Ordinance 9101 states that public works projects do not bear the costs associated with the relocation of existing structures such as utility pipelines, etc. Consequently, such funding is unlikely.

6.2.1.2 Local Agencies.

8. Jefferson Parish, Planning Department
Lydia M. Jemison, Parish Planner II

Comment: Comments concerning proposed land uses near the alternative project sites.

Response: Comments noted.

6.2.1.3 Special Interest Groups,

9. League of Women Voters of Jefferson Parish
Charlotte Fremaux, President

Comment: Supports construction of single facility in the U.S. Highway 90 area.

Response: Comment noted.

6.2.1.4 Private Citizens.

10. Mr. Roy Smogor

Comment: The DEIS fails to describe impacts to soils in detail.

Response: The impacts regarding soils have been identified in Tables 1-2, 6-1, 6-2, 6-3 and Figure 6-1 of the Draft EIS. Future impacts regarding soils on proposed land uses are addressed in Chapter 6. Many of the comments in Tables 6-1 and 6-2 are technical in nature and are intended to be used by architects, engineers and personnel in the construction industry. The necessary precautions and state-of-the-art procedures in dealing with these soils were not discussed as this type of analysis would be construction-material specific.

Comment: The DEIS does not define existing land uses at each site.

Response: The existing land uses of the proposed sites are discussed in Sections 1.5.5, 5.1.4, and 6.1.2 of the Draft EIS. In addition, Figure 5-2 shows proposed treatment plant sites overlain on a map showing existing development within the West Bank of Jefferson Parish.

Comment: The DEIS does not describe impacts to prime soils, especially as regards the U.S. 90 and Cousins North sites.

Response: The fact that the U.S. 90 and Cousins North proposed sites contain prime soils does not negate the use of these sites for a wastewater treatment facility. They are in fact the most desirable soils of those found in the

study area for structural purposes and even these have a moderate to severe degree of limitation for most urban uses after they have been drained (see Tables 6-1 and 6-2 of the Draft EIS).

Comment: Possible contamination to the surface water system by ground water.

Response: In regard to surface water contamination by ground water during construction, it was determined that there would be no long-term primary or secondary negative impacts on surface water, vegetation or existing ecosystems. An environmental comparison of the final alternatives is presented in Table 1-2 of the Draft EIS.

Comment: Possible impacts to biological habitats from the conveyance system.

Response: The impacts of any of the final alternate conveyance systems will be minimal. There are alternative project sites where the soil conditions are quite poor and would require extensive mitigating measures to justify selection. Three of these alternatives are: Live Oak, Churchill Farms and South Woodmere. A complete geotechnical soils analysis will be required to match mitigating measures to the potential impacts of each proposed alternative site and also to their conveyance systems.

Comment: Cumulative effects of Mississippi River disposal on biological and recreational resources.

Response: The environmental consequences of the final project alternatives related to the area's surface water quality are detailed in Section 6.2.2 of the Draft EIS. Of the final 12 alternatives, those that discharge into the Mississippi River will be discharging into a "water quality limited" segment of the River and removal of up to 90% of all organic matter in the effluent will result in negligible environmental impacts on the water quality of this segment of the river. In summary, the proposed effluent discharges to the Mississippi River pose no adverse impacts for existing water intakes within the planning area. Wastewater effluent to be discharged to the River will receive secondary treatment. The spatial separation of wastewater outfall locations and existing water supply intakes, along with the magnitude of Mississippi

River flow rates, will allow for dilutions of effluents to such a degree that the impact on water quality at intake points will be minimal.

Comment: Definition of minor in the ecosystem analysis.

Response: Impacts to ecosystems are inherent in any proposed construction project. The environmental impacts that will result were judged to be "minor" meaning short-term. Any disturbance of an ecosystem is adverse. However, given the magnitude of the construction project and the (after completion) ongoing operation and maintenance routine, it is felt that there will be no appreciable degree of irrevocable or ireversible damage.

Comment: The project will have beneficial impacts to water quality.

Response: Comment noted. The improvement of water quality will be a beneficial impact of the project.

Comment: Will use of a site result in population burst beyond designated land uses?

Response: Use of a site is not expected to result in a population density greater than the designated land use. Population density is controlled by local zoning ordinances. Housing demand in the proposed site vicinity is not expected to increase beyond designated land uses.

Comment: DEIS fails to address possible growth burst in the immediate project site vicinity.

Response: Growth will likely occur more rapidly in those areas first served by wastewater treatment than in those areas not served by wastewater treatment.

Comment: Will utility systems be stressed by population growth?

Response: No utilities are expected to be stressed or overloaded as a result of possible population influx to the first-served areas.

11. Mr. A.J. Planche, Jr., Private Citizen

Comment: Problem of Citizens Advisory Committee (CAC) members being able to inform the public.

Response: Citizens Advisory Committee meetings were held, in most cases, on the night before the meetings were held for the general public. The meetings were held on two consecutive nights because of the costs involved for travel and lodging for consultants and EPA personnel.

Comment: No person on the CAC from environmental groups.

Response: The EPA required that the CAC be composed of representatives of economic interests, public officials, public interests and private citizens. There was no requirement for a member to represent an environmental group. However, one of the persons representing the private citizens is very active with several environmental groups and represents environmental interests on several Parish-oriented committees.

Comment: CAC members not attending meetings were not replaced - new five-person committee to select a site in Zone I.

Response: All members of the CAC who missed three consecutive meetings were replaced by the Jefferson Parish Council. The representative from the Waggaman-Bridge City corridor was not replaced until a special five-person committee was appointed to represent that area. That committee was appointed when the decision was made to give serious consideration to the construction of a single regional facility in that area.

Comment: The Draft EIS did not consider NEPA.

Response: It is the opinion of the EPA and Jefferson Parish that the contents of the EIS do not violate the spirit of NEPA.

Comment: Siting procedures and site locations were not consistent--especially considerations involving the Marrero River Road sites.

Response: The River Road site which was partly in the City of Westwego was outside of the jurisdiction of the Jefferson Parish governing authority. The River Road sites in Marrero and Harvey were smaller and in areas better utilized by water dependent commercial or industrial interest. Acquisition of those sites would have been cost prohibitive. However, with the Parish's new preferred alternative, it is proposed that the existing facilities at Marrero and Harvey be upgraded and expanded.

Comment: The monitoring station on the Mississippi River indicates that phenol and fecal coliforms exceed criteria.

Response: The environmental consequences of the final project alternatives related to the area's surface water quality are detailed in Section 6.2.2 of the Draft EIS. Of the final 12 alternatives, those that discharge into the Mississippi River will be discharging into a "water quality limited" segment of the river and removal of up to 90% of all organic matter in the effluent will result in negligible environmental impacts on the water quality of this segment of the River. In summary, the proposed effluent discharges to the Mississippi River pose no adverse impacts for existing water intakes within the planning area. Wastewater effluent to be discharged to the River will receive secondary treatment. The spatial separation of wastewater outfall locations and existing water supply intakes, along with the magnitude of Mississippi River flow rates, will allow for dilutions of effluents to such a degree that the impact on water quality at intake points will be minimal.

Comment: Propose three plant sites be used.

Response: Comment noted. Current financial constraints have led to the adoption of a modification of this suggestion via the rehabilitation/renovation of the largest sewerage treatment plant in each zone.

12. Mr. Joseph I. Vincent, Private Citizen

Comment: Page 6-22 incorrectly states that Marrero is incorporated.

Response: Comment noted. Marrero is not an incorporated city.

Comment: Soils map on page 6-3 does not agree with the one prepared by Burke & Associates in connection with the relocation of the Ames Pumping Station.

Response: The soils indicated in Figure 6-1, are generalized from the USDA/ Soil Conservation Service, 1978. The actual site conditions for each alternative are identified in Tables 6-1, 6-2 and 6-3.

Comment: The "No Project" alternative would result in continued degradation of the Barataria Estuary and result in adverse effects to both endangered and common species.

Response: Comment noted. The proposed project is intended to improve water quality and lessen the adverse impacts of the current method of wastewater treatment.

Comment: Disagrees limiting growth of the West Bank would be an adverse effect.

Response: Comment noted. Growth has been occurring on the West Bank for a number of years and is projected to continue. Lack of wastewater treatment facilities could limit this growth.

Comment: Disagrees that "No Action" would not affect recreation income or employment since the fishing industry could be adversely affected.

Response: Comment noted.

6.1.2.2 Comments Received During the Public Hearing

A public hearing on the Draft EIS was held on April 22, 1982 at 7:30 p.m. in the New Gretna Courthouse, Council Chamber, Second Floor, Derbigny and Second Streets, Gretna, Louisiana. The following is an agenda of the public hearing.

1. Introductory Remarks — Jim Collins, Environmental Protection Agency

2.	Construction Grants Process	Gene Wossum Environmental Protection Agency
3.	Environmental Impact Statement and Public Participation	Darlene Owsley Environmental Protection Agency
4.	Alternatives	Representatives of VTN, Louisiana
5.	Status of Preferred Alternative Selection by Jefferson Parish	Mary Curry, Ph.D. Environmental Impact Office, Jefferson Parish
6.	Citizens' Advisory Committee (CAC) Recommendation	Danny Pouwels Chairman, CAC
7.	Comments on Draft EIS	Public
8.	Closing Remarks	Jim Collins Environmental Protection Agency

At the public hearing, members of the public raised questions on the Draft EIS and presented statements on the alternative wastewater treatment facilities, methods of discharge and siting considerations evaluated therein. The following major concerns were expressed during the public hearing:

1. Mr. Richard Nabirschnig, Bridge City Citizen

Comment: The treatment plant at the U.S. 90 site will lower property values.

Response: Page 6-70 of the Draft EIS indicates that, if the U.S. 90 site is chosen, appropriate site planning, including buffer areas and screening, should be utilized to minimize adverse effects to the nearby residential areas. This site, as well as the other final sites, is of sufficient size to provide adequate buffer areas. It is also anticipated that proper design and operational procedures will be incorporated into the preferred plan to lessen, if not eliminate, potential adverse impacts such as noise and odors to nearby residential areas. Therefore, the preferred plan is not expected to have an adverse impact on property values.

2. Mr. William Jacks, Marrero Citizen

Comment: Wastewater treatment plant effluent should not be discharged to the Mississippi River upstream of the water supply intakes (several other speakers also raised this view).

Response: The environmental consequences of the final project alternatives related to the area's surface water quality are detailed in Section 6.2.2 of the Draft EIS. In summary, the proposed effluent discharges to the Mississippi River pose no adverse impacts for existing water intakes within the planning area. Wastewater effluent to be discharged to the River will receive secondary treatment. The spatial separation of wastewater outfall locations and existing water supply intakes, along with the magnitude of Mississippi River flow rates, will allow for dilutions of effluents to such a degree that the impact on water quality at intake points will be minimal.

3. Mr. A.J. Planche, Jr., Marrero Citizen

Comment: The Draft EIS doesn't sufficiently consider NEPA.

Response: The objectives of NEPA and items which must be considered during EIS preparation are addressed in Section 3.2.2 of the Draft EIS. The Draft EIS was prepared in accordance with U.S. EPA regulations for implementing the procedural provisions of NEPA. The document concentrates on key issues as determined through an early public "scoping" process, and as further defined during an extensive public participation program. Wastewater management alternatives have been evaluated to ensure that the plan eventually selected will be both cost-effective and environmentally sound.

Comment: A treatment plant discharging to the Mississippi River cannot be monitored.

Response: The effluent discharged by any treatment plant in the preferred alternative will be monitored by the Parish for certain parameters. The exact

requirements will be included in a National Discharge Pollutant Elimination System (NPDES) permit issued by EPA for any new facility. The monitoring results obtained by the Parish will be submitted to the Louisiana Department of Natural Resources and EPA.

Comment: The wetland area at the Kelvin Tract was misrepresented in the Draft EIS.

Response: The Kelvin Tract was evaluated by the U.S. EPA with respect to the wetland characteristics of the site (see page 6-44 of the Draft EIS). The southwestern quarter of the site, which consists of an old solid waste landfill and which supports generally herbaceous disturbed-site species, was determined to be non-wetland and is considered feasible for use as a sewage treatment plant site. The remainder of the site is classified as wetland or transition-type wetland and is considered impractical for use as a treatment facility site.

4. Ms. Nancy Parkerson

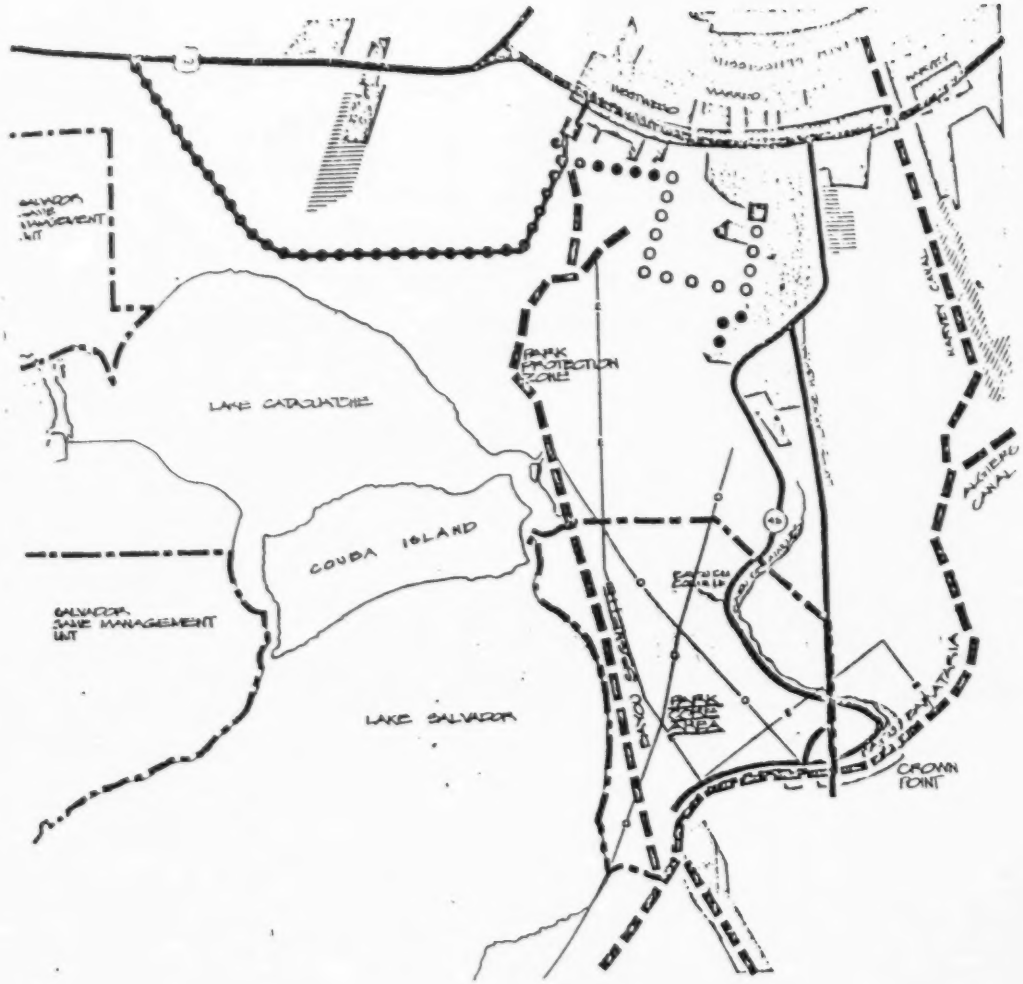
Comment: Table 1-2 of the Draft EIS does not provide an accurate description of the impacts of the alternatives.

Response: Table 1-2 presents a summary comparison of the final alternatives. The table is designed to allow the reader to easily compare the relative impacts of the final alternatives "at-a-glance." However, in order to fully understand the impacts of a particular alternative and the analyses which were used to assess the impacts, Chapter 6 of the Draft EIS must be consulted.

5. Messrs. Carl Galliano, Ronnie Hebert, Richard Naberschnig, A.J. Planche, Jr., and William Jacks

Comment: Opposed the one plant concept. Three plants would be a more suitable method of treatment.

Response: Comment noted. Current financial constraints have led to the adoption of a modification of this suggestion via the rehabilitation/renovation of the largest treatment plant in each zone.



GENERALIZED LAND USE

WOODED RIDGES, WETLANDS FORESTED /NONFORESTED

PARKS AND OPEN SPACE

AGRICULTURAL

RESIDENTIAL

COMMERCIAL

INDUSTRIAL

OTHER FEATURES

MAJOR WATERWAYS

PRIVATE LEVEE

PARISH LEVEE

PUMPING STATION

OIL PIPELINE

TRANSMISSION LINE

THESE INCLOSURES AND CORE AREA SIZE WERE EXTRACTED FROM THE DRAFT GENERAL MANAGEMENT PLAN/DEVELOPMENT CONCEPT PLAN WITH ENVIRONMENTAL ASSESSMENT, 1981

Park Core Area - 8600 acres

EXISTING CONDITIONS

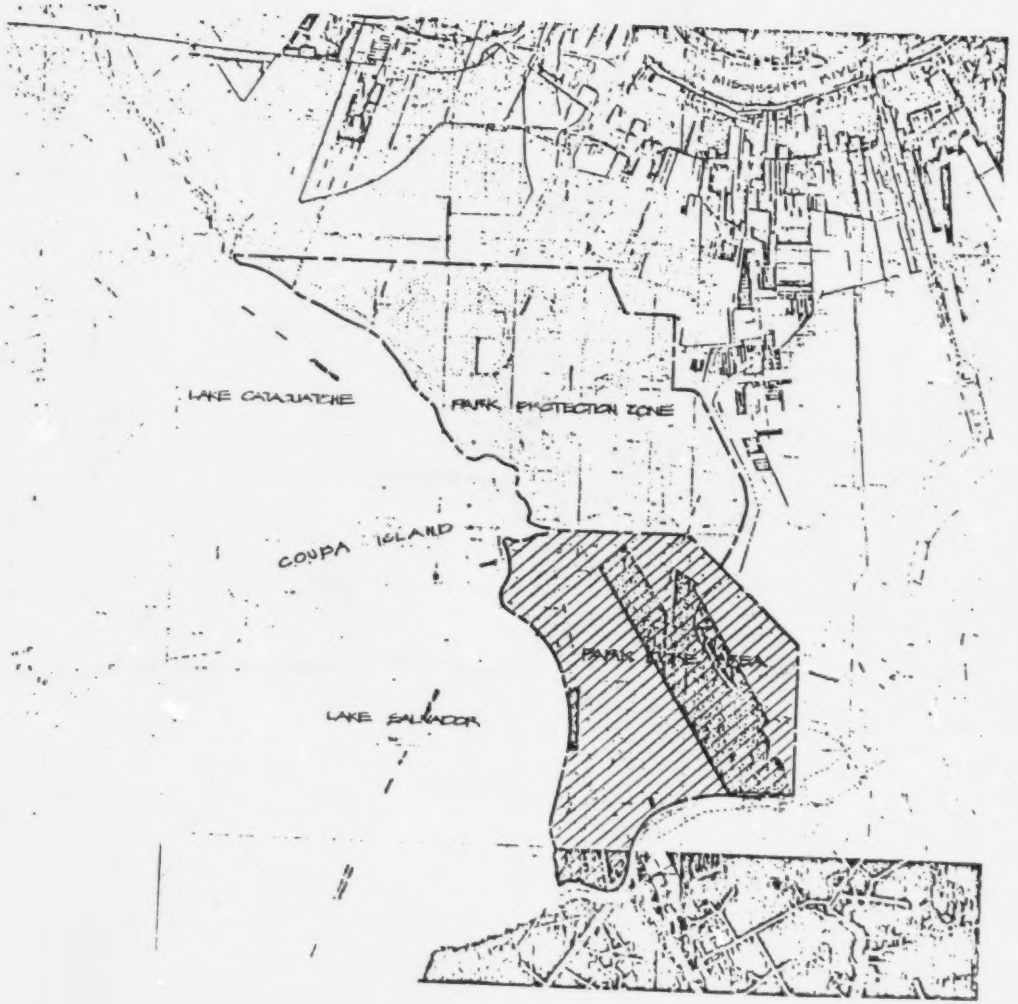
BARATARIA UNIT

JEAN LAFITTE NATIONAL HISTORICAL PARK

UNITED STATES DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

FIGURE 6-1

Reproduced from
best available copy.



PRIVATE

PUBLIC (NONFEDERAL)

FEDERAL

AREA AUTHORIZED FOR ACQUISTION BY CONGRESS

UNIT BOUNDARY

THESE INCLOSURES AND CORE AREA SIZE WERE EXTRACTED FROM THE DRAFT GENERAL MANAGEMENT PLAN/DEVELOPMENT CONCEPT PLAN WITH ENVIRONMENTAL ASSESSMENT. 1981

Park Core Area - 8600 acres

OWNERSHIP
BARATARIA UNIT
JEAN LAFITTE
NATIONAL HISTORICAL PARK

FIGURE 6-2

6.3 PUBLIC PARTICIPATION FOR THE SUPPLEMENTAL DRAFT EIS

A CAC meeting was held on March 7, 1983. URS and the Jefferson Parish Sewerage Director presented information on the current status of the 201 project including renovations at the Marrero, Harvey and Bridge City Sewerage Treatment Plants, plans for eventually consolidating all plants into those three plants and new discharge points. The CAC unanimously agreed to support the new three plant concept of rehabilitation and renovation with all discharges going to the Mississippi River or with the Marrero and Bridge City discharges going to the Mississippi River and the Harvey discharge going to the Harvey Canal. This question of discharge will be resolved by the State contingent upon re-evaluation of their 208 plan. The meeting was attended by Parish officials, consultants, eight CAC members and three persons representing the general public.

On April 9, 1983, the Times-Picayune/States-Item carried an article entitled "Jeff Hearing on Sewerage Set Monday." This Public Meeting was held on April 11, 1983. URS and Jefferson Parish presented information to update the public on the new three plant proposal which was developed when it was realized that federal funding would not be available. A Public Notice (3x3 inches) was printed in the West Bank Guide on April 3, 1983. The notice announced a Public Meeting for the purpose of providing to the public an update on revisions to the West Bank 201 Wastewater Treatment Facilities Plan and Supplemental EIS. The meeting was attended by Parish officials, consultants, eight CAC members and 20 persons representing the general public. Comments received included primarily inquiries on how the Parish would finance the new program and if the developers would pay their share of the expenses.

EPA will sponsor a public hearing on the Supplemental Draft EIS not earlier than 30 days after its distribution to the public. The reader is referred to the transmittal letter for the date, time and place of the hearing. The primary purpose of this hearing is to solicit public input on the adequacy of the environmental evaluation contained in this Supplemental Draft EIS.

6.4 MAILING LIST

Listed below are governmental agencies, public interest groups and others which will receive a copy of the Supplemental Draft EIS; in addition, approximately 40 private citizens will be provided a copy of the Supplemental Draft EIS.

Federal

U.S. Department of Agriculture, Soil Conservation Service
U.S. Department of Interior, National Park Service
U.S. Department of Commerce
U.S. Department of Transportation
Water Resources Council
Agricultural Stabilization and Conservation Service
U.S. Department of Energy
Advisory Council on Historic Preservation
U.S. Department of Housing and Urban Development
U.S. Public Health Service
U.S. Department of Health and Human Services
Economic Development Administration
U.S. Army Corps of Engineers, New Orleans District
U.S. Fish and Wildlife Service
Senator Russell B. Long
Senator J. Bennett Johnston
Congresswoman Corrine C. (Lindy) Boggs

State

Louisiana Department of Agriculture
Louisiana Soil and Water Conservation Commission
Louisiana Attorney General's Office
Louisiana Department of Culture, Recreation and Tourism
Louisiana Governor's Office
Louisiana State Planning Office

Louisiana Department of Health and Human Resources
Louisiana Department of Natural Resources
Louisiana Division of State Lands
Louisiana Office of Highways
Louisiana Office of Public Works
Louisiana Office of Planning and Technical Assistance
Louisiana Coastal Management Section
Louisiana Office of State Clearinghouse
Louisiana Department of Wildlife and Fisheries
Louisiana Department of Commerce

Public Interest Groups

Audubon Society
Ecology Center of Louisiana, Inc.
Sierra Club
Louisiana Wildlife Federation
Citizens for Clean Water
Concerned Citizens of Marrero
Jefferson Parish League of Women Voters
Woodland West Civic Association

Other

Greater Jefferson Port Commission
Louisiana Land and Exploration Company
Marrero Land and Improvement Association
Intracoastal Terminal, Inc.
J.J. Krebbs and Sons, Inc.

7.0 LIST OF PREPARERS

7.1 ENVIRONMENTAL PROTECTION AGENCY

Name	Education	Responsibility
Spotts, Clinton B.	BS/Agricultural Education	Regional EIS Coordinator
Thomas, Norm	BS/Chemistry	Chief, EIS Preparation Section
Owsley, Darlene	BS/Biology	EIS Project Officer
Wossum, Gene	MS/Civil-Environmental Engineering	Project Engineer
Henderson, Rosemary	BA/Economics	Public Participation Coordinator

7.2 EIS CONSULTANT

This EIS consultant was VTN Louisiana, Inc., Metairie, Louisiana. They were assisted by the following subcontractors: Alfred Crew Consulting Engineers, Inc., Ridgewood, New Jersey and VTN Consolidated, Inc. of Irvine, California. The personnel from these firms involved in the preparation of the EIS are listed below.

VTN Louisiana, Inc.		
Flores, Michael W. (PE)	BS/Civil Engineering	Project Director
Alfred Crew Consulting Engineers, Inc.		
Harris, Jerome A. (PE)	MS/Sanitary Engineering	Senior Engineer
VTN Consolidated, Inc.		
Sakaguchi, John, L.	MBA/Marketing & International Business	Senior Economist
Meehan, Thomas E.	Ph.D./Biological Sciences	Senior Scientist
Ade, Sheryl L.		Word Processing

8.0 BIBLIOGRAPHY

Beavers, R.C. 1983. Cultural Resource Assessment, Alternative Site Survey, Jefferson Parish West Bank 201 EIS, Addendum D. Jefferson Parish, LA.

DeBlieux, R.B. pers. comm. State Historic Preservation Office, State of Louisiana, Letter to M. Curry, Environmental Impact Officer, Jefferson Parish. June 8, 1983. Baton Rouge, LA.

Louisiana Department of Transportation and Development. 1978. Coastal Resources Program - The Value of Wetlands in the Barataria Basin. Baton Rouge, LA.

Milwaukee Metropolitan Sewerage District. 1980. Combined Sewer Overflow: Milwaukee Water Pollution Abatement Program. Vol. 3, Part 2. Milwaukee, WI.

Owen, W.F. 1982. Energy in Wastewater Treatment. Prentice-Hall, Inc. Englewood Cliffs, NJ.

Regional Planning Commission for Orleans, Jefferson, St. Bernard and St. Tammany Parishes. 1978. Comprehensive Plan, 1975-1995. New Orleans, LA.

Stanley Consultants, Inc. 1980. Water Management Plan. Appendix F: Mississippi River Basin Plan. Prepared for the Louisiana Department of Natural Resources, Office of Environmental Affairs, Division of Water Pollution Control. Baton Rouge, LA.

URS Company. 1983. Letter to Michael Flores, VTN Louisiana, Inc. dated May 5, 1983. Metairie, LA.

U.S. Army Corps of Engineers, New Orleans District. 1975. Inventory of Basic Environmental Data: New Orleans-Baton Route Metropolitan Area. New Orleans, LA.

U.S. Army Corps of Engineers, New Orleans District. 1975. Draft Environmental Impact Statement for the Bayou des Familles Development Project. Prepared by VTN Louisiana, Inc., New Orleans, LA.

U.S. Department of Agriculture, Soil Conservation Service. 1978. Soil Survey of the West Bank of Jefferson Parish. Metairie, LA.

_____. 1983. Soil Survey of Jefferson Parish, Louisiana. Soil Conservation Service, Norco, LA.

U.S. Department of Housing and Urban Development. 1976. Flood Hazard Boundary Map H and Flood Insurance Rate Map I for Jefferson Parish, Louisiana and Unincorporated Areas. New Orleans, LA.

U.S. Department of Transportation, 8th Coast Guard District. 1977. Final Environmental Impact Statement for the West Bank Expressway, Jefferson Parish, Louisiana. New Orleans, LA.

U.S. Environmental Protection Agency. 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Office of Noise Abatement and Control, Washington, D.C.

_____. 1982. Draft Environmental Impact Statement, Wastewater Treatment Facilities, Jefferson Parish (West Bank), Louisiana. Dallas, TX.

Von Bodungen, G. pers. comm. Louisiana Department of Natural Resources, Letter dated April 5, 1983 to Bruce Burlgass, Jefferson Parish, Metairie, Louisiana.

Water Resource Engineers. 1980. Water Quality Management Plan. Appendix B: Barataria Basin Plan. Prepared for the Louisiana Department of Natural Resources, Office of Environmental Affairs, Division of Water Pollution Control. Baton Rouge, LA.

Watson, B. pers. comm. Louisiana Wildlife and Fisheries Department. March 2, 1982. Baton Rouge, LA.

Wesner, George M., Gordon L. Culp, Thomas S. Lineck, and Daniel J. Hinrichs. 1978. Energy Conservation in Municipal Wastewater Treatment. USEPA, 430/9-77-011, MCD-32. Washington, D.C.

TABLE A-1

MUNICIPAL DISCHARGES

JEFFERSON PARISH - WEST BANK WASTEWATER FACILITY PLAN

Plant	Receiving Stream
Avondale North	Main Canal to Bayou Segnette
Avondale South	Main Canal to Bayou Segnette
Bayou des Familles*	Bayou des Familles to Bayou Barataria
Bridge City	Bridge City Canal No. 3 to Labranche Canal to Main Canal to Bayou Segnette
Floral Acres	Sauls Canal to Bayou Verrett to Lake Cataouatche
Flora Haze	Douglas Canal to Two Mile Canal to Cousins Canal
Harvey	Gardere Canal to Murphy Canal to Bayou Barataria
Live Oak	Sauls Canal to Bayou Verrett to Lake Cataouatche
Marrero	Outfall Canal to Millaudon Canal to Bayou Segnette
Marrero Oxidation Pond	Unnamed Canal to Bayou Boeuf to Bayou Segnette
Meadowbrook	Drainage Canal to Bayou Fatma to Bayou Barataria
Terrytown No. 1	Wright Canal to Bayou Farma to Bayou Barataria
Terrytown No. 2	Terry Parkway Canal to Industry Canal to Oakwood Canal to Bayou Farma to Bayou Barataria
Woodmere	Unnamed canal parallel to Cousins Canal to Piepline Canal to Intracoastal Waterway to Barataria Bayou

*Has current NPDES Permit with BOD/TSS limits of 10/30 mg/l.

NOTE: This table and those that follow present a summary of data for existing wastewater treatment facilites on the West Bank and information on projected flows. These data were prepared by the facilities engineer for the facilities plan.

MAY 5 1983

TABLE A-2

SEWAGE TREATMENT PLANT DISCHARGE AND FLOW DATA

Plant	Receiving Waterbody	Design Capacity (MGD)	Projected 2005 Flow (MGD)
Live Oak	Bayou Verret	0.15	1.50
Floral Acres	Bayou Verret	0.15	1.03
North Avondale	Bayou Segnette	0.15	0.17
South Avondale	Bayou Segnette	1.10	2.22
Bridge City	Bayou Segnette	1.04	2.38
Marrero	Bayou Segnette	4.35	8.04
Marrero Oxidation Pond	Bayou Segnette	0.34	1.34
Bayou des Familles	Bayou des Familles	0.65	1.67
Flora Haze	Bayou Barataria	0.05	0.06
Woodmere	Bayou Barataria	0.70	1.40
Harvey	Bayou Barataria	1.00	6.39
Terrytown No. 1	Bayou Barataria	0.51	0.55
Terrytown No. 2	Bayou Barataria	1.40	1.79
Meadowbrook	Bayou Barataria	1.36	1.95
TOTAL		12.95	30.58

MAY 5 1993

TABLE A-3

PROJECTED YEAR 2005 AVERAGE DAILY POLLUTANT DISCHARGE
FOR "NO-ACTION" PLAN

(all values in lbs/day)

Plant	BOD	COD	TSS	NH_3	PO_4	TKN	Oil & Grease
Live Oak	2440	6255	2440	320	245	585	970
Floral Acres	1505	3910	1501	200	145	375	595
North Avondale	65	320	65	35	45	45	35
South Avondale	2145	6495	2145	365	365	760	860
Bridge City	2520	7350	2520	410	330	820	1005
Marrero	7260	22640	7260	1315	1140	2695	2905
Marrero Oxidation Pond	1755	6455	1755	255	190	495	710
Bayou des Familles	1880	5350	1880	275	220	540	710
Flora Haze	20	135	20	10	10	20	20
Woodmere	1335	4075	1335	230	190	465	530
Harvey	9270	24200	9270	1210	940	2330	3715
Terrytown No. 1	200	1070	200	65	55	135	80
Terrytown No. 2	1015	3955	1015	275	245	555	400
Meadowbrook	1325	4710	1325	300	265	630	530

MAY [illegible]

TABLE A-4

PROJECTED WATER USE, INFILTRATION, AND RETURN FLOW (MGD)

Plant	Population (2005)	Estimated Water Use	Estimated Return Flow[1]	Estimated Infiltration[2]	Estimated Actual Flow (2005)
Terrytown No. 1	7,010	0.43	0.38	0.25	0.63
Terrytown No. 2	22,005	1.54	1.25	0.54	1.79
Meadowbrook	21,625	1.69	1.41	0.57	1.98
Harvey	72,380	6.54	5.47	0.93	6.40
Woodmere	12,270	1.15	0.96	0.44	1.40
Flora Haze	570	0.05	0.03	0.02	0.05
Marrero	75,895	6.84	5.59	2.43	8.02
Marrero Oxidation Pond	11,455	1.03	0.83	0.55	1.38
Bayou des Famillies	19,310	1.86	1.56	0.10	1.66
Bridge City	23,415	2.10	1.74	0.64	2.38
North Avondale	2,415	0.20	0.16	0.04	0.20
South Avondale	26,845	2.10	1.61	0.48	2.09
Floral Acres	12,010	1.11	0.94	0.09	1.03
Live Oak	18,295	1.76	1.50	0.09	1.59

[1]Present return flow and additional flow based on 85 gal/capita/day.

[2]Present infiltration and new sewer infiltration based on 15 in-mi/1000 capita and 200 gpd/in-mi.

MAY 5 19

TABLE A-5

PRESENT AND PROJECTED AVERAGE WASTEWATER FLOWS AT EXISTING TREATMENT PLANTS (MGD)

Plant	Present Flow*	Projected Flow	Design Capacity
Terrytown No. 1	0.63	0.63	0.63
Terrytown No. 2	1.33	1.79	1.40
Meadowbrook	1.40	1.98	1.36
Harvey	1.81	6.40	1.00
Woodmere	0.96	1.40	0.70
Flora Haze	0.04	0.05	0.06
Marrero	5.38	8.02	4.35
Marrero Oxidation Pond	1.14	1.38	0.34
Bayou des Familles	0.13	1.66	0.65
Bridge City	1.25	2.38	1.04
North Avondale	0.15	0.20	0.15
South Avondale	0.87	2.09	1.10
Floral Acres	0.15	1.03	0.15
Live Oak	0.08	1.59	0.15

* From I/I Analysis

MAY

DAVID C. TREEN
GOVERNOR

MRS. LAWRENCE H. FOX
SECRETARY

State of Louisiana

DEPARTMENT OF CULTURE, RECREATION AND TOURISM

OFFICE OF CULTURAL DEVELOPMENT

ROBERT B. DEBLIEUX
ASSISTANT SECRETARY

DIVISION OF ARCHAEOLOGY
KATHLEEN BYRD, DIRECTOR

DIVISION OF THE ARTS
ALBERT B. HEAD, DIRECTOR

DIVISION OF HISTORIC PRESERVATION
ANN REILEY JONES, DIRECTOR

FOLKLIFE PROGRAM
NICHOLAS R. SPITZER,
PROGRAM MANAGER

June 8, 1983

Dr. Mary Curry
Environmental Impact Officer
Jefferson Parish
3330 N. Causeway Blvd., Rm. 303
Metairie, LA 70002

Re: Wastewater Treatment Facilities
Jefferson Parish, West Bank

Dear Dr. Curry:

My staff has reviewed the latest cultural resources assessment prepared for the referenced project by Richard Beavers, entitled, Cultural Resource Assessment, Alternative Site Survey, Jefferson Parish West Bank 201 EIS, Addendum D. We concur with Mr. Beavers' findings that none of the three expansion sites presently under consideration contain significant cultural resources which are likely to be impacted by the proposed construction. As a result, we have no objections to the implementation of the projects as proposed. In the event that deeply buried archaeological remains are uncovered during construction, however, this office should be notified immediately.

If we may be of further assistance, do not hesitate to contact my staff in the Division of Archaeology.

Sincerely,

Robert B. DeBlieux
State Historic Preservation Officer

RBD:PGR:tb

cc: Mr. Richard Beavers
University of New Orleans

P. O. BOX 44247 BATON ROUGE, LOUISIANA 70804 (504) 342-6680 AND LINC 421-6680

STATE OF LOUISIANA
DEPARTMENT OF CULTURE, RECREATION AND TOURISM
OFFICE OF PROGRAM DEVELOPMENT

DAVID C. TREEN
Governor

ROBERT B. DeBLIEUX
Assistant Secretary

MRS. LAWRENCE H. FOX
Secretary

RECEIVED
JUN 18 1982
6 ES

June 15, 1982

Mr. Clinton B. Spotts
Regional EIS Coordinator
U.S. Environmental Protection Agency
Region VI
1201 Elm Street
Dallas, Texas

Re: Wastewater Treatment Facilities
U.S. 90 Switchyard Site
Jefferson Parish, West Bank

Dear Mr. Spotts:

By letter dated May 19, 1982, Dr. Mary Curry, Jefferson Parish Environmental Impact Officer, informed our office that a parish-preferred site had been selected for the above-referenced facilities and asked for our comments. After reviewing our site files and a cultural resources report detailing the results of a recent survey of the project site (Beavers 1982), it is our opinion that significant cultural resources are not likely to be impacted at this location. Therefore, we have no objections to the implementation of this project.

If we may be of further assistance, do not hesitate to contact my staff in the Division of Archaeology.

Sincerely,

Robert B. DeBlieux
State Historic Preservation Officer

RBD:PGR:tb

cc: Dr. Mary Curry

DIVISION OF ARCHAEOLOGY
P.O. Box 44247 Baton Rouge, La. 70804 504 342-6680

STATE OF LOUISIANA
DEPARTMENT OF CULTURE, RECREATION AND TOURISM
OFFICE OF PROGRAM DEVELOPMENT

DAVID C. TREEN
Governor

ROBERT B. DeBLIEUX
Assistant Secretary

MRS. LAWRENCE H. FOX
Secretary

May 17, 1982

RECEIVED
MAY 20 1982
6 ES

Mr. Clinton B. Spotts
Regional EIS Coordinator
U.S. Environmental Protection Agency
Region VI
1201 Elm Street
Dallas, Texas 75270

Re: Wastewater Treatment Facilities
Jefferson Parish (West Bank)

Dear Mr. Spotts:

My staff has reviewed the Draft EIS for the referenced project, and we have the following comments to make.

In our letter of February 15, 1982 to Mary Curry, Environmental Impact Officer for Jefferson Parish, we recommended that documentation for a Determination of Eligibility for Magnolia Lane Plantation be prepared. Since that time, members of my staff have made a site visit to the property, reviewed additional information and concluded that the significant resources related to the plantation are located within an area about one-quarter to one-half mile of River Road or about one-and-a-half miles from the proposed "US 90" waste water facility site. We continue to feel that Magnolia Lane is significant; however, because of the distance between the important resources of the plantation and the "US 90" site, we no longer recommend that documentation for a Determination of Eligibility on the plantation be prepared.

If you have any questions, please contact my staff in the Divisions of Archaeology and Historic Preservation.

Sincerely,

Robert B. DeBlieux
State Historic Preservation Officer

RBD:JPK:tb

cc: Kathleen Byrd
Ann Jones
Mary Curry

DIVISION OF ARCHAEOLOGY
P.O. Box 44247 Baton Rouge, La. 70804 504 342-6680

STATE OF LOUISIANA
DEPARTMENT OF CULTURE, RECREATION AND TOURISM
OFFICE OF PROGRAM DEVELOPMENT

DAVID C. TREEN
Governor

ROBERT B. DeBLIEUX
Assistant Secretary

MRS. LAWRENCE H. FOX
Secretary

February 15, 1982

RECEIVED
FEB 18 1982
ENVIRONMENTAL IMPACT
DEVELOPMENT
CONTROL DEPT.

Mary G. Curry, Ph.D.
Environmental Impact Officer
Jefferson Parish
3330 N. Causeway Blvd., Rm 303
Metairie, LA 70002

Re: 201 Wastewater Treatment Facilities Plan
Culture Resource Assessment Alternate
Site Survey - Jefferson Parish
Westbank 201 EIS - Addendum B - June 1981
Jefferson Parish

Dear Dr. Curry:

My staff has reviewed the referenced report. Of the six proposed sites, the only one that may affect architectural or historical resources is Site Number 1 (U.S. 90). This site lies on part of the back section of Magnolia Lane Plantation, which may be eligible for inclusion in the National Register of Historic Places because of its significance in the history of architecture and landscape architecture.

The owner of Magnolia Lane has requested that the plantation be considered for National Register listing, and we have made plans to inspect the site. Nevertheless, the lead federal agency should proceed with an investigation of the plantation so that documentation for a Determination of Eligibility can be prepared. The documentation should be prepared pursuant to 36CFR63.

If you have any questions, please contact my staff in the Divisions of Archaeology and Historic Preservation.

Sincerely,

Robert B. DeBlieux
State Historic Preservation Officer

RBD:JPK:tb

cc: Kathleen Byrd, Director
Division of Archaeology
Ann Jones, Director
Division of Historic Preservation

DIVISION OF ARCHAEOLOGY AND HISTORIC PRESERVATION
P. O. Box 44247 Baton Rouge, La 70804 504 342-6682

Environmental Evaluation of the Switchyard Site

Location. The site is located southwest of the Community of Bridge City, south of a railraod switching yard operated by the Southern Pacific Transportation Company/St. Louis Southwestern Railway Company, west of the U. S. 90-West Bank Expressway Interchange, east of the Community of Avondale and north of U. S. 90.

Boundaries. The northern boundary of the site is the shell road which parallels the railroad tracks. The southern boundary is a line running parallel to and 1000 feet south of the shell road forming the northern boundary. The western boundary is the International Matex Tank Terminal property and the eastern boundary is a line running parallel to and 2500 feet from the western boundary.

Cost Effectiveness. Use of this site for the one-plant concept, according to URS, would be a cost effective alternative, which would be equal to and rank in third place along with the U. S. 90 site one-plant concept, the "No Action" alternative being the most cost effective. Costs for a one-plant concept at the new site would be: $89,397,000, capital cost; $3,759,000, annual operation and maintenance cost; and $11,731,000, equivalent uniform annual cost. Substituting this new site for the U. S. 90 site in any of the two or three plant alternatives would have a negligible impact on the cost ranking of those alternatives.

Community Impact. The site is not adjacent to any residences or commercial/industrial enterprises that would be adversely impacted by the presence of a sewerage treatment plant. Consequently, no persons or businesses would have to be relocated.

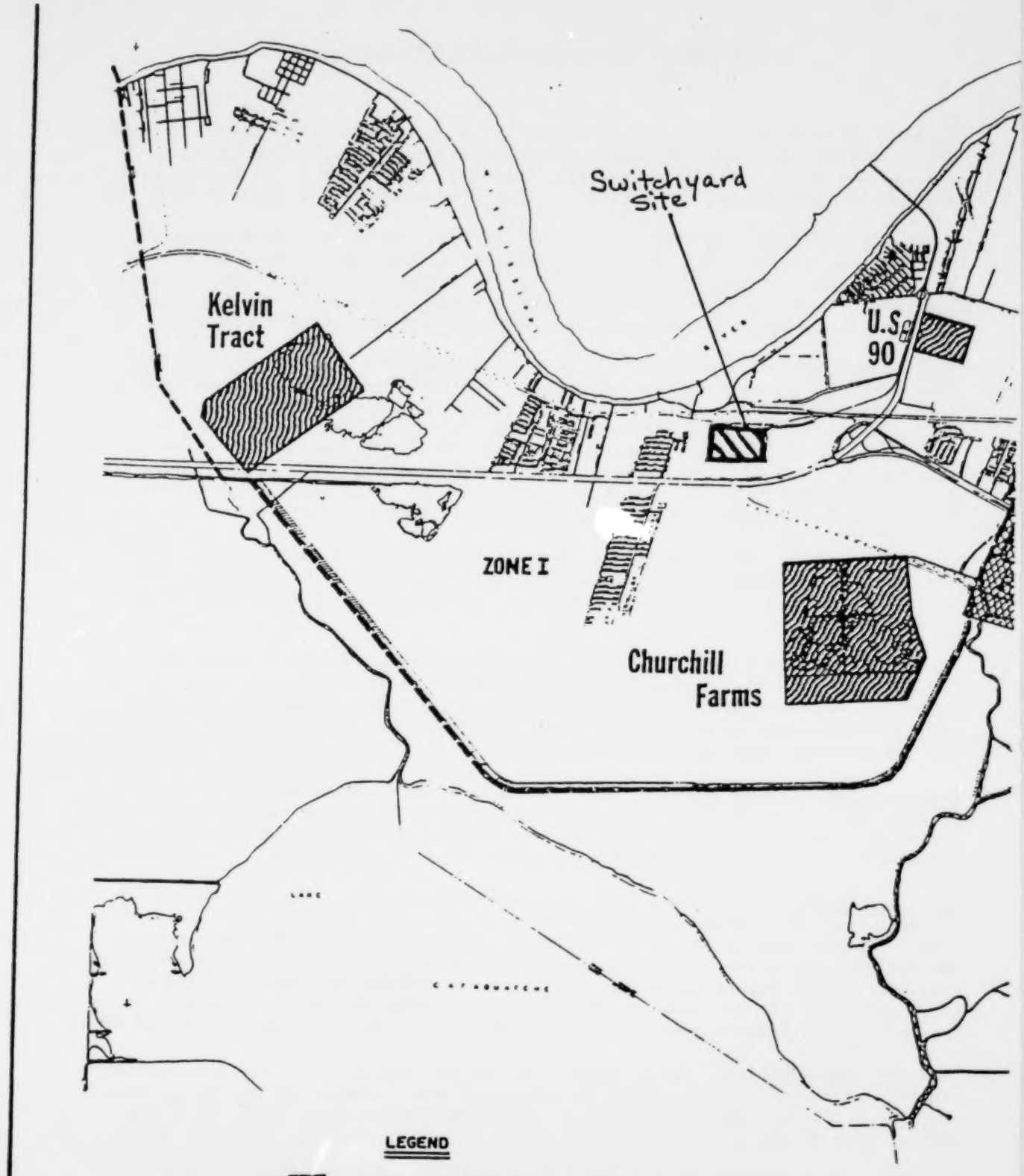
Habitat Value. Because the site is located between two noisey transportation corridors, it is unlikely that the area serves as habitat for other than the most adventive species such as birds, small rodents, reptiles and amphibians, which ordinarily co-exist in or frequent urban areas, and various aerial, terrestrial and subterranean invertebrates.

Endangered/Threatened Species. Because there is no standing water on the site or adjacent to the site, the area does not offer suitable habitat or feeding area for either the southern bald eagle or the American alligator. No endangered/threatened plants are reported from anywhere in Jefferson Parish.

Soils and Hydrology. Sharkey clay characterizes the site. Sharkey clay is one of the better soils found in Jefferson Parish. It is firm throughout and lacks organic layers, making it one of the better soils to support urban development. Sharkey clay has a very high shrink-swell potential, a low total subsidence potential and no fire hazard potential. It is poorly drained and characterized by slope gradients of less than one percent. The natural drainage of the area is to the south. The area is part of the original natural levee of the Mississippi River.

Land Use Compatibility. The proposed land use for the site and the area surrounding it on three of the four sides is industrial use. Commercial use is proposed south of U. S. 90. Lapalco Boulevard is proposed to intersect U. S. 90 in the general area of the proposed site.

Wetlands. This area has been under forced drainage since the 1960's. Water is pumped to the south under U. S. 90. There is no standing water on the site, which is characterized by an overstory of primarily bottomland hardwood species and an understory which incudes numerous palmettos. There is still evidence that this area has undergone transition from a wetland to a dryland area. This area is not contiguous with any productive wetlands to the South.



BASE MAP PROVIDED BY: ROY F. WESTON, INC.